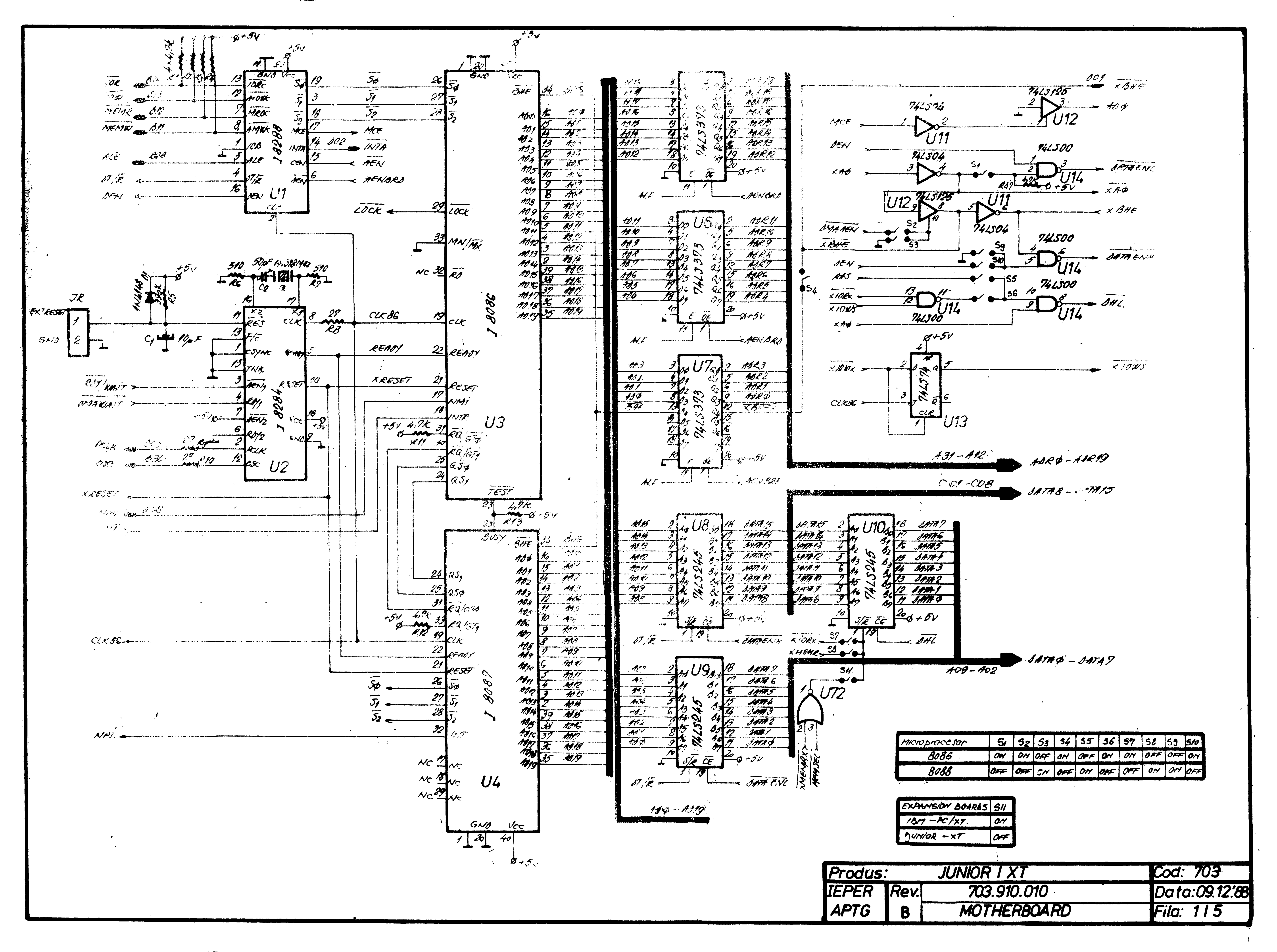
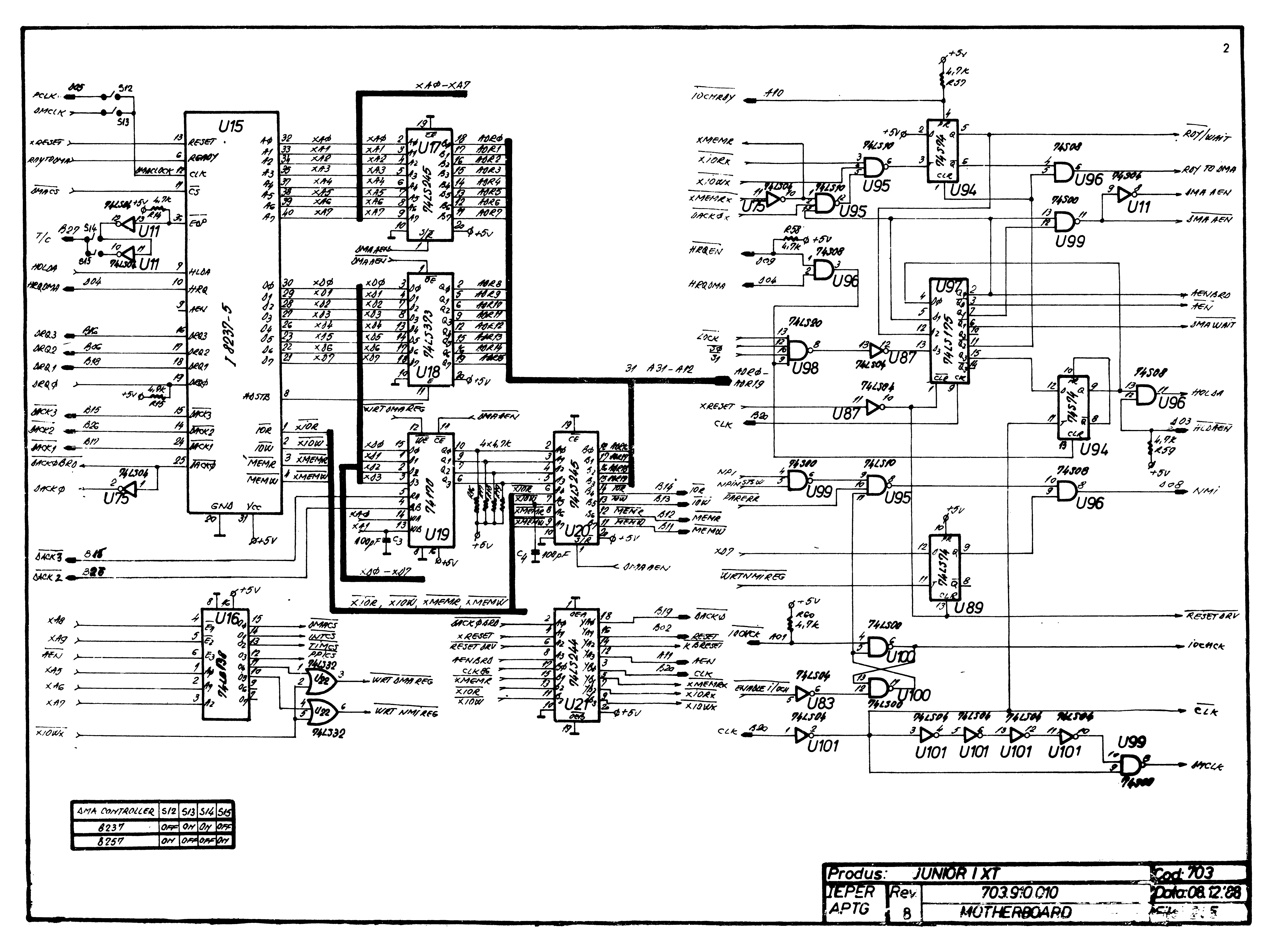


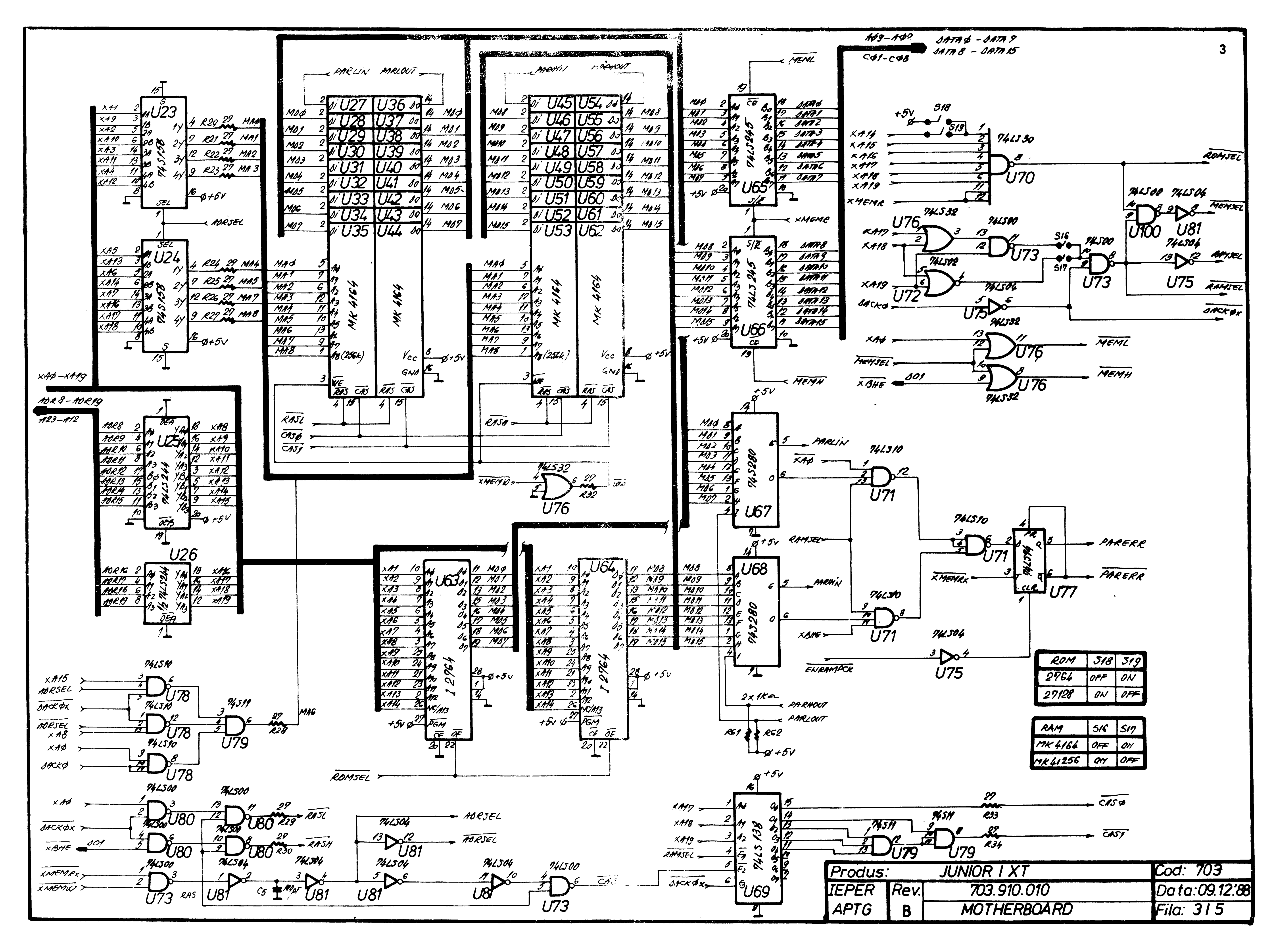
Microprocesor	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
8086	ON	ON	OFF	ON	OFF	ON	ON	OFF	OFF	ON
8088	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	ON	OFF

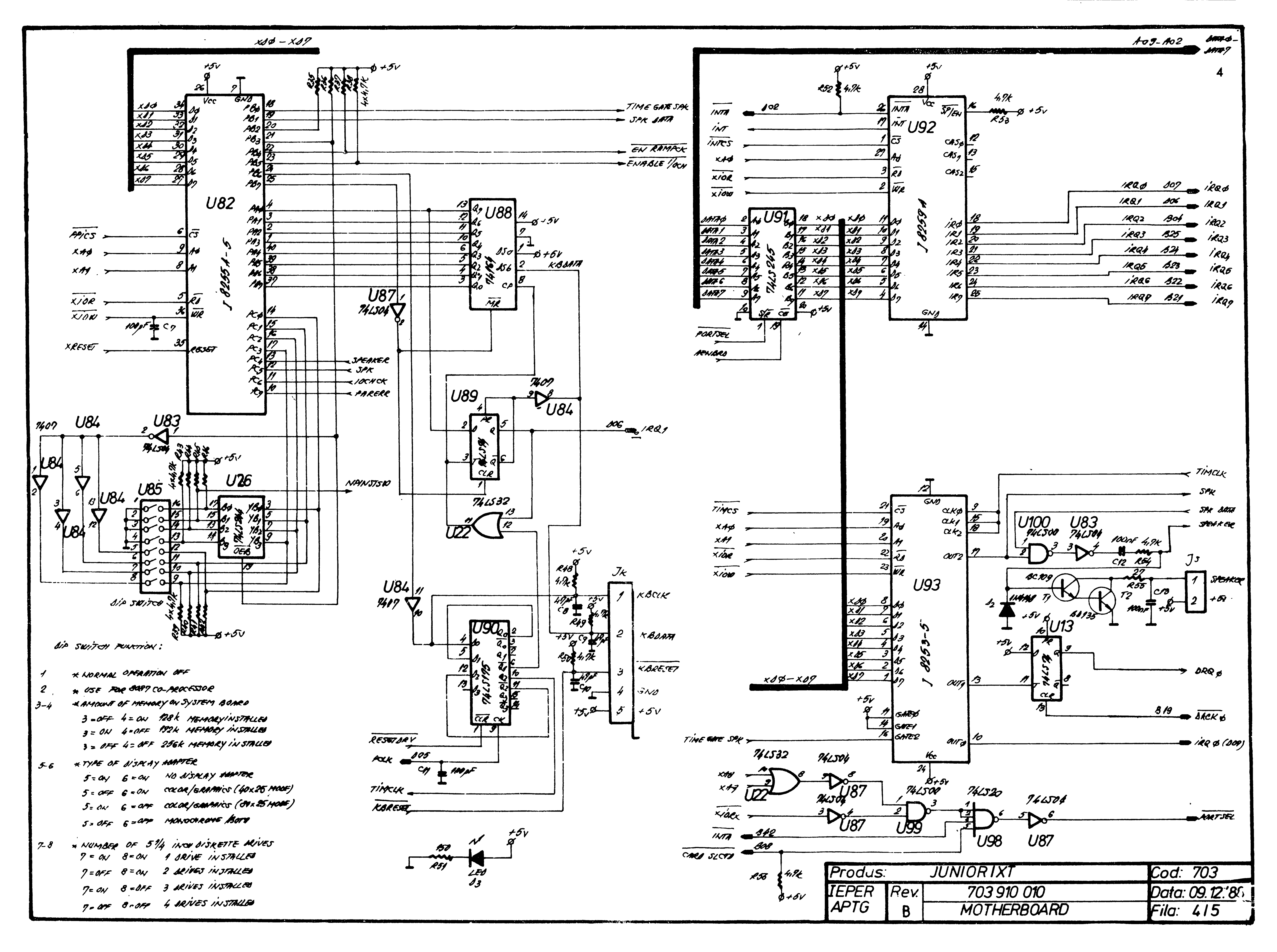
EXPANSION BOARDS	S11
IBM - PC/XT.	ON
JUNIOR - XT	OFF



DMA CONTROLLER	S12	S13	S14	S15
8237	OFF	ON	ON	OFF
8257	ON	OFF	OFF	ON

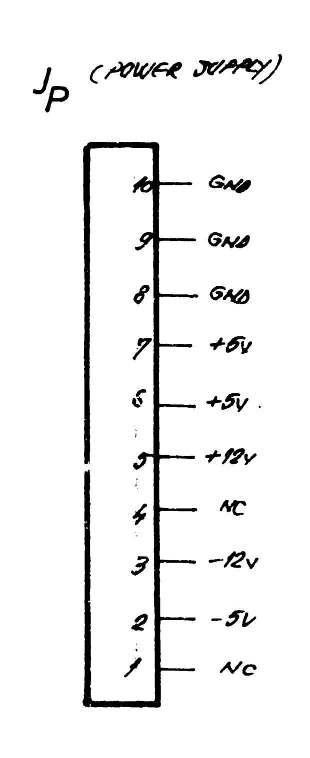
Produs: JUNIOR I XT		Cod: 703
IEPER APTG	Rev. 8	703.9.0.010
		MOTHERBOARD
		Data: 08.12.'88


3
Produs: JUNIOR I XT
Cod: 703
IEPER APTG
Rev. B
703.910.010
MOTHERBOARD
Data: 09.12.'88
Fila: 3 / 5
ROM S18 S19
2764 OFF ON
27128 ON OFF
RAM S16 S17
MK 4164 OFF ON
MK 41256 ON OFF
U23 74LS158
U24 74LS158
U25 74LS244
U26 74LS244
U27 U36 U28 U37 U29 U38 U30 U39 U31 U40 U32 U41 U33 U42 U34 U43 U35 U44
U45 U54 U46 U55 U47 U56 U48 U57 U49 U58 U50 U59 U51 U60 U52 U61 U53 U62
MK 4164
U63 I 2764
U64 I 2764
U65 74LS245
U66 74LS245
U67 74S280
U68 74S280
U69 74LS138
U70 74LS30
U77 74LS74
PARLIN
PARLOUT
PARERR
ROMSEL
RAMSEL
MEML
MEMH
CAS0
CAS1
RASL
RASH
ADRSEL
XA0-XA19
ADR8-ADR19
A23-A12
DATA0 - DATA7
DATA8 - DATA15
ENRAMPCK


4
XD0 - XD7
A09 - A02
U82
I 8255A-5
U88
74LS164
U87
74LS04
U89
74LS74
U84
7407
U83
74LS04
U85
U26
74LS138
U22
74LS32
U90
74LS175
Jk
KBCLK
KBDATA
KBRESET
GND
+5V
U91
74LS245
U92
I 8259A
U93
I 8253-5
U100
74LS00
U13
74LS74
J3
SPEAKER
U99
74LS00
U98
74LS20
TIME GATE SPK
SPK DATA
EN RAMPCK
ENABLE I/OCH
SPEAKER
SPK
IOCHCK
PARERR
NPINSTSID
PPICS
XRESET
XIOR
XIOW
INTA
INT
INTCS
PORTSEL
TIMCS
TIMCLK
DRQ 0
DACK 0
IRQ 0 (D09)
CARD SLCTD
MATSEL
DIP SWITCH
DIP SWITCH FUNCTION:
1 * NORMAL OPERATION OFF
2 * USE FOR 8087 CO-PROCESSOR
3-4 * AMOUNT OF MEMORY ON SYSTEM BOARD
3 = OFF 4 = ON 128k MEMORY INSTALLED
3 = ON 4 = OFF 192k MEMORY INSTALLED
3 = OFF 4 = OFF 256k MEMORY INSTALLED
5-6 * TYPE OF DISPLAY ADAPTER
5 = ON 6 = ON NO DISPLAY ADAPTER
5 = OFF 6 = ON COLOR/GRAPHICS (40x25 MODE)
5 = ON 6 = OFF COLOR/GRAPHICS (80x25 MODE)
5 = OFF 6 = OFF MONOCHROME BOTH
7-8 * NUMBER OF 5 1/4 INCH DISKETTE DRIVES
7 = ON 8 = ON 1 DRIVE INSTALLED
7 = OFF 8 = ON 2 DRIVES INSTALLED
7 = ON 8 = OFF 3 DRIVES INSTALLED
7 = OFF 8 = OFF 4 DRIVES INSTALLED
LED D3
Produs: JUNIORIXT
Cod: 703
IEPER APTG
Rev. B
703 910 010
MOTHERBOARD
Data: 09.12.'86
Fila: 415

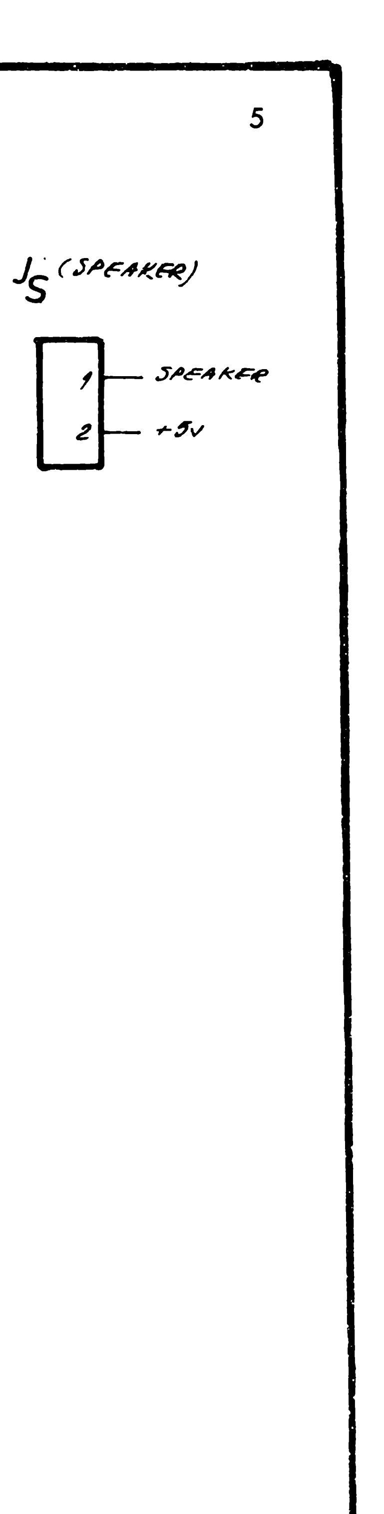
J1 J2 J3 J4 J5 J6 J7 J8

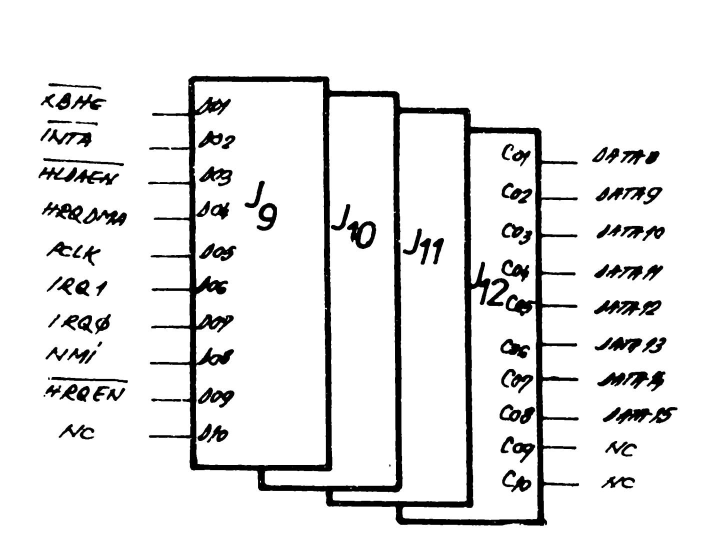
Signal	Pin	Pin	Signal
GND	B01	A01	IOCHCK
RESET	B02	A02	DATA7
+5V	B03	A03	DATA6
IRQ2	B04	A04	DATA5
-5V	B05	A05	DATA4
DRQ2	B06	A06	DATA3
-12V	B07	A07	DATA2
CARDSLCTD	B08	A08	DATA1
+12V	B09	A09	DATA0
GND	B10	A10	IOCHRDY
MEMW	B11	A11	AEN
MEMR	B12	A12	ADR19
IOW	B13	A13	ADR18
IOR	B14	A14	ADR17
DACK3	B15	A15	ADR16
DRQ3	B16	A16	ADR15
DACK1	B17	A17	ADR14
DRQ1	B18	A18	ADR13
DACK0	B19	A19	ADR12
CLK	B20	A20	ADR11
IRQ7	B21	A21	ADR10
IRQ6	B22	A22	ADR9
IRQ5	B23	A23	ADR8
IRQ4	B24	A24	ADR7
IRQ3	B25	A25	ADR6
DACK2	B26	A26	ADR5
T/C	B27	A27	ADR4
ALE	B28	A28	ADR3
+5V	B29	A29	ADR2
OSC	B30	A30	ADR1
GND	B31	A31	ADR0



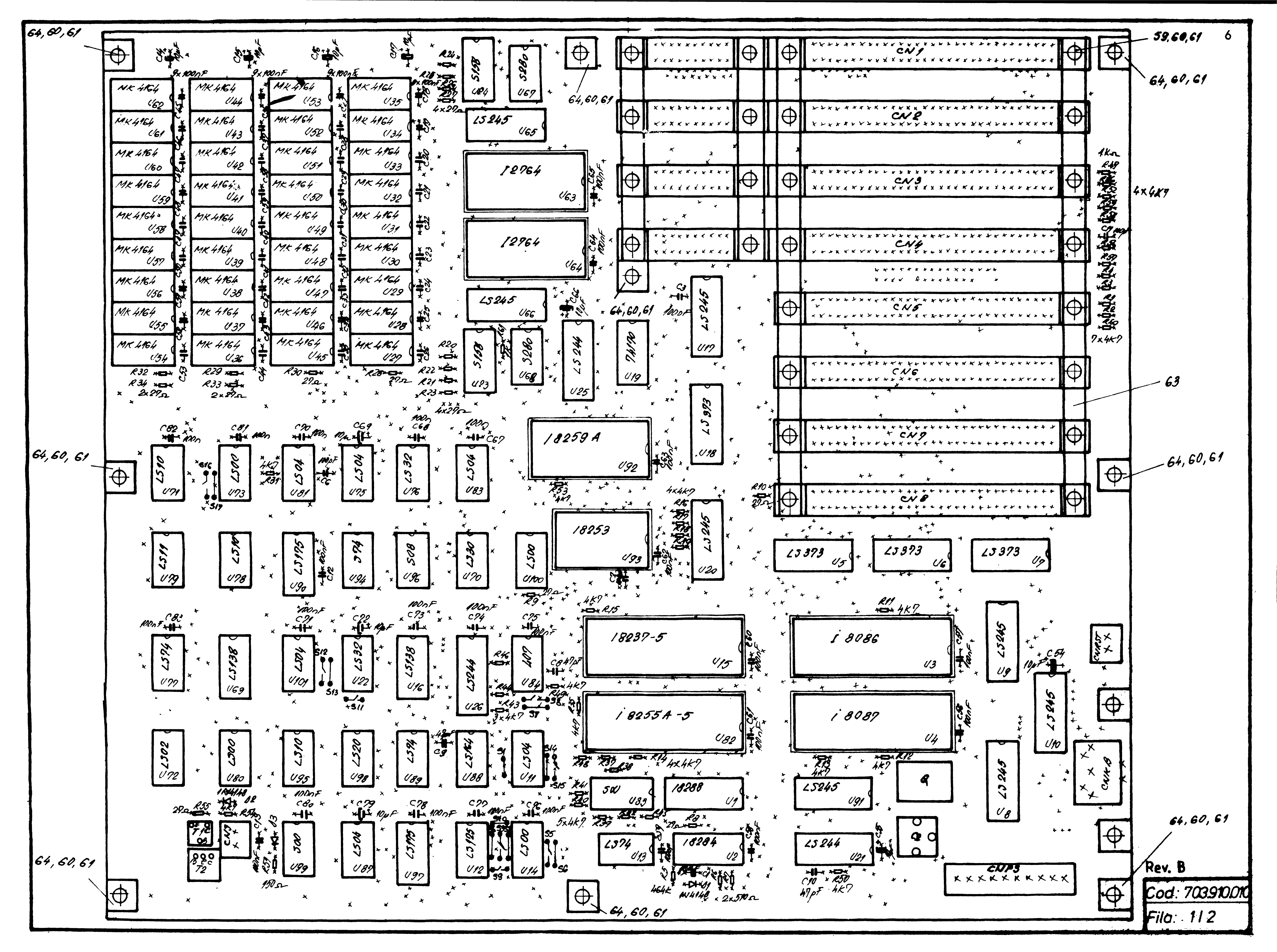
JR (RESET)
1 EXT RESET
2 GND

JK (KEYBOARD)
KBRESET 3
KBDATA 2
KBCLK 1
5 +5V
4 GND



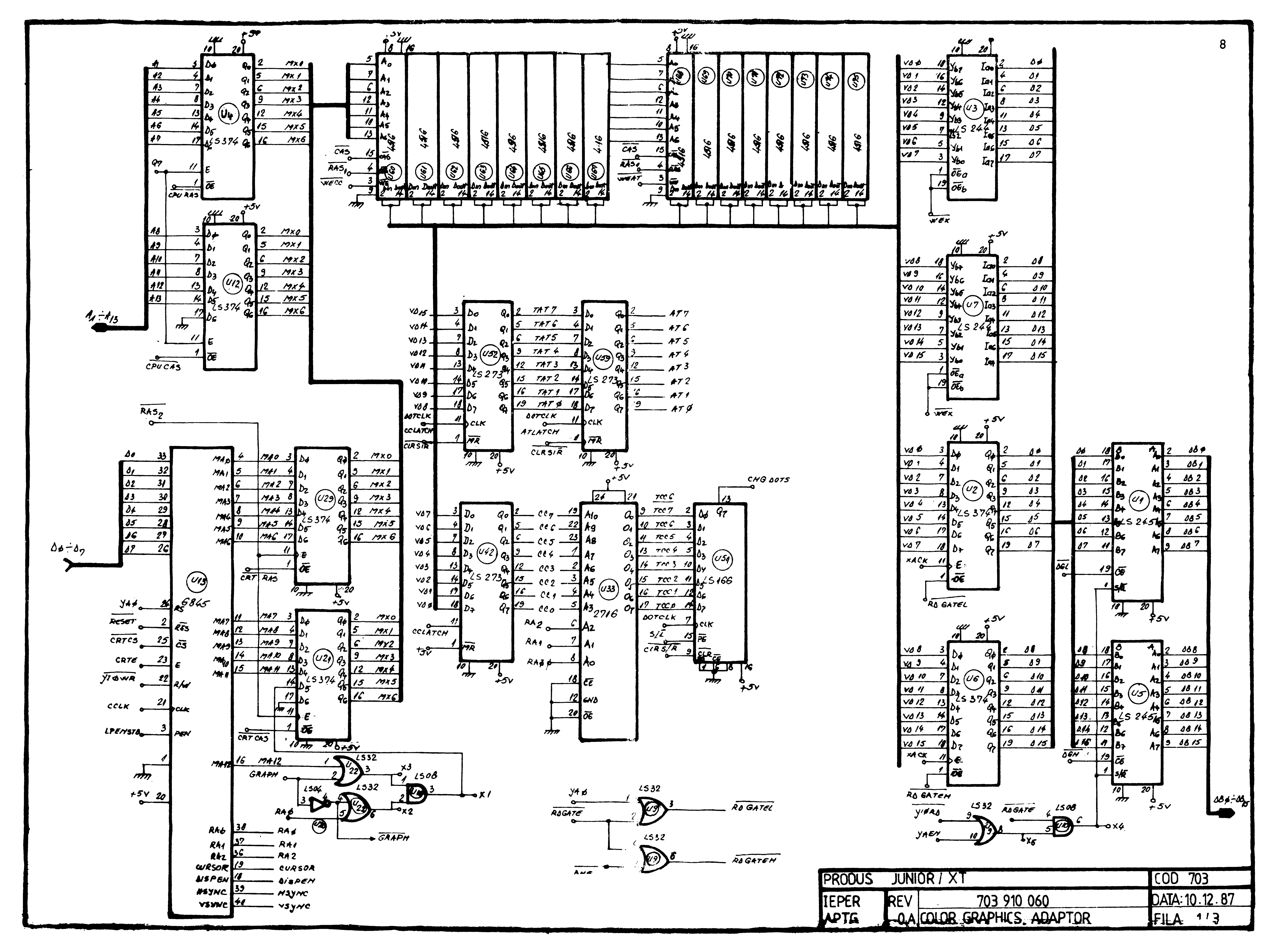


Produs:		JUNIOR I XT	Cod: 703
IEPER APTG	Rev. B	703.910.010	Data: 09.12.'88
		MOTHERBOARD	Fila: 515

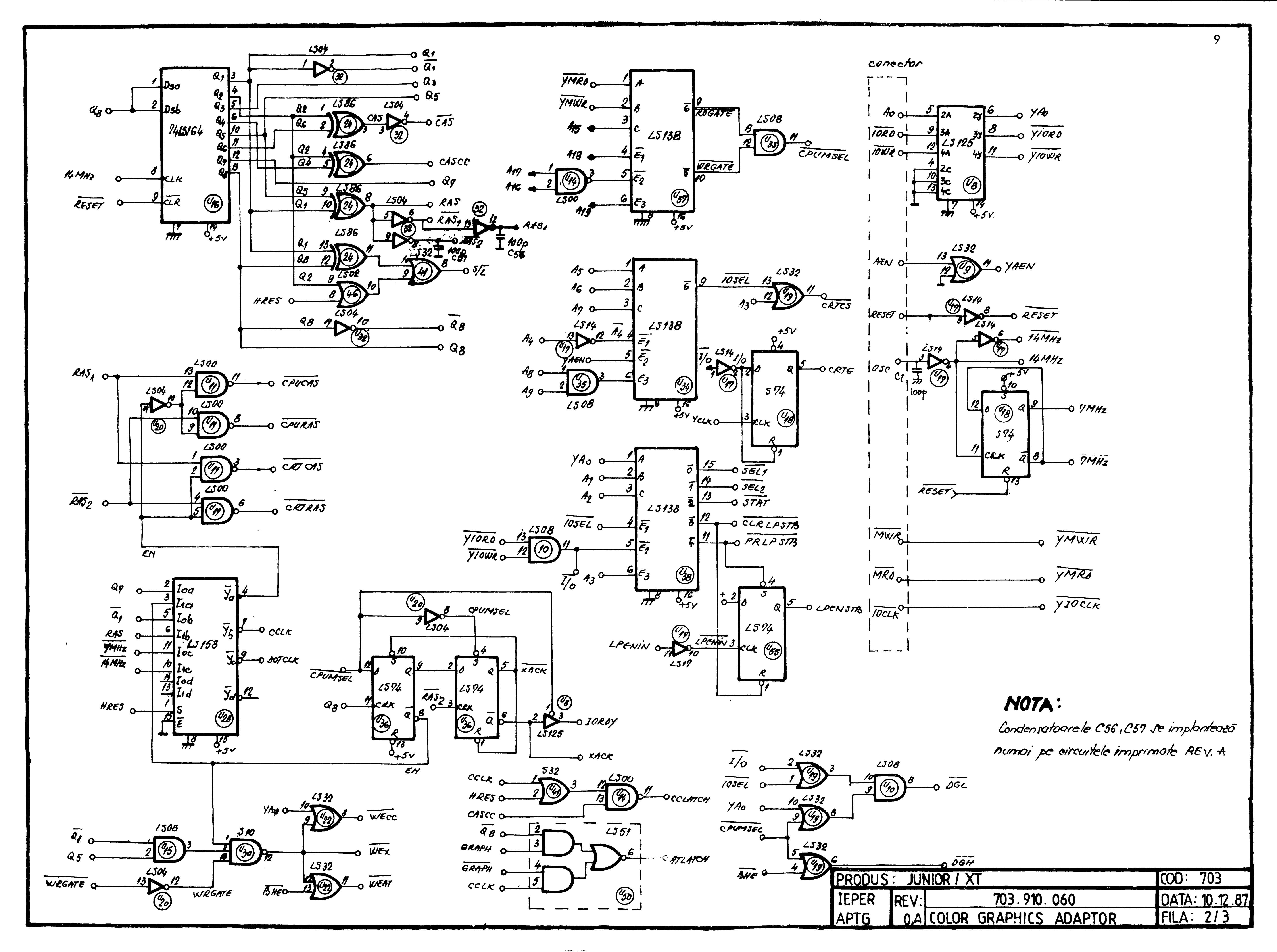

64, 60, 61
59, 60, 61
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
63
4x4K7
7x4K7
1Kn
MK 4164 U62
MK 4164 U61
MK 4164 U60
MK 4164 U59
MK 4164 U58
MK 4164 U57
MK 4164 U56
MK 4164 U55
MK 4164 U54
MK 4164 U44
MK 4164 U43
MK 4164 U42
MK 4164 U41
MK 4164 U40
MK 4164 U39
MK 4164 U38
MK 4164 U37
MK 4164 U36
MK 4164 U53
MK 4164 U52
MK 4164 U51
MK 4164 U50
MK 4164 U49
MK 4164 U48
MK 4164 U47
MK 4164 U46
MK 4164 U45
MK 4164 U35
MK 4164 U34
MK 4164 U33
MK 4164 U32
MK 4164 U31
MK 4164 U30
MK 4164 U29
MK 4164 U28
MK 4164 U27
9x100nF
S158 U84
S280 U67
LS245 U65
I2764 U63
I2764 U64
LS245 U66
S158 U83
S280 U68
LS244 U25
74190 U19
LS245 U17
LS373 U18
I8259A U92
I8253 U93
LS245 U20
LS373 U5
LS373 U6
LS373 U7
LS10 U71
LS00 U73
LS04 U81
LS04 U75
LS32 U76
LS04 U83
LS11 U79
U78
LS175 U90
S74 U94
S08 U96
LS30 U70
LS00 U100
LS74 U77
LS138 U69
LS04 U101
LS32 U22
LS138 U16
LS244 U26
407 U84
I8237-5 U15
I8086 U3
LS245 U9
LS245 U10
I8255A-5 U82
I8087 U4
LS302 U72
LS300 U80
LS10 U95
LS20 U98
LS94 U89
LS164 U88
LS04 U11
SW U85
I8288 U1
LS245 U91
LS245 U8
S00 U99
LS04 U87
LS175 U97
LS175 U12
LS00 U14
LS74 U13
I8284 U2
LS244 U21
CNP3
CNRST
CNKB
T1
T2
2x27Ω
4x27Ω
5x4K7
3x4K7
4x4K7
2x510Ω
1N4148
464K
47pF
4K7
Rev. B
Cod: 703910010
Fila: 1/2

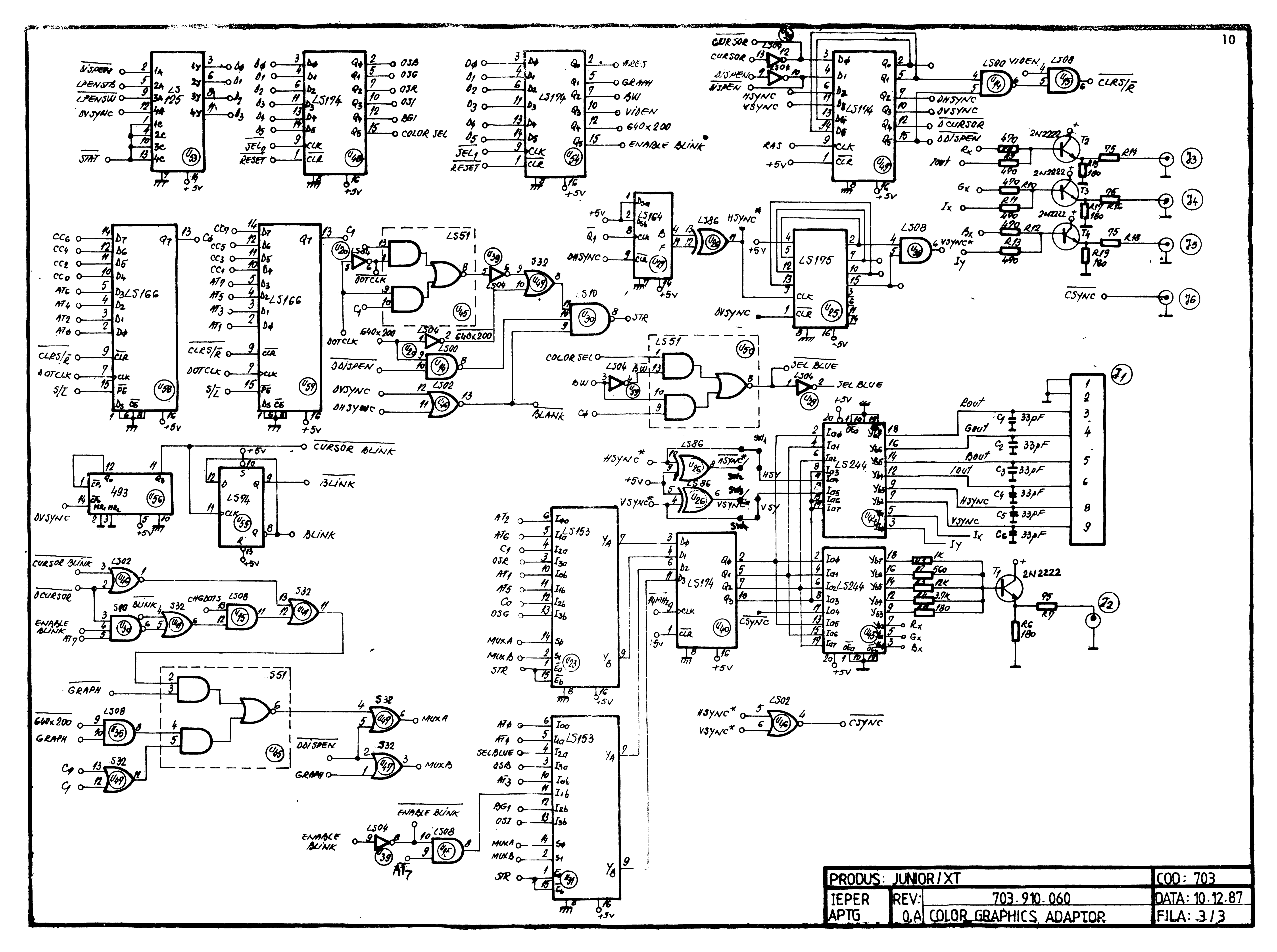
Poz	Simbol	Denumirea	Cod	Observatii	Cant.
64		Distanțieri plagă	286.000011.		9
63		Rigidizare	703.110.010		4
62	U4	Circuit integrat	i 8087	optional	1
61		Șaibă izolatoare	211010 xx		42
60		Piuliță hexagonală	316.110.030		33
59		Șurub M3 x 20	STAS 10295/80		24
58	CN1 ÷ CN8	conector mamă	300.6.52		8
57	CNKB	conector mamă 5 contacte	303.608 A		1
56	CNS, CNRST	conector MOLEX tată 2 contacte	201.649		2
55	CNPS	Conector MOLEX tată 10 contacte	201.652		1
54	U85	Întrerupător prin translație	200.025 A		4
53	C2	condensator 30-40 pF	CT 1010 V		1
52	U93	Soclu ci 24 pini	779.190.19		1
51	U63, U64, U92	Soclu ci 28 pini	779.190.20		3
50	U3, U4, U15, U82	Soclu ci 40 pini	779.190.21		4
49	Q	Cuarț 14,318 MHz			1
48	D3	Led	MBE 101R		1
47	D1, D2	Diodă	1N4148		2
46	T1	Tranzistor	BC 107		1
45	T2	Tranzistor	BD 135		1
44	C69, C72, C79	Condensator 10µF/16V	CTSP 1042		11
	C1, C14 ÷ C19, C54, C55, C66,				
	C73 ÷ C78, C80 ÷ C83				
	C60 ÷ C65, C67, C68, C70, C71,				
43	C12, C13, C18 ÷ C53, C55 ÷ C58	Condensator 100nF/10%/50V	MX 3208		62
42	C8, C9, C10	Condensator 47pF/10%/50V	MC 3202		3
41	C3, C6, C9, C11	Condensator 100pF/10%/60V	MC 3202		4
40	R6, R7	Rezistență 510Ω/5%/0,25W	RPM 3025		2
39	R51	Rezistență 150Ω/5%/0,25W	RPM 3025		1
38	R8 ÷ R10, R20 ÷ R30, R32 ÷ R34	Rezistență 22Ω/5%/0,25W	RPM 2025		17
37	R55	Rezistență 22Ω/2%/0,5W	RPM 3050		1
36	R5	Rezistență 464k/2%/0,25W	RPM 3025		1
35	R35 ÷ R50, R52 ÷ R54, R56 ÷ R60				
	R24, R26, R28, R31	Rezistență 4k7/5%/0,25W	RPM 3025		37
34	R61, R62	Rezistență 1k/5%/0,25W	RPM 3025		2
33	U84	Circuit integrat	CDB 407		1
32	U94	Circuit integrat	74S74	K531TM2P	1
31	U96	Circuit integrat	74S08	KM531LI1	1
30	U99	Circuit integrat	74S00	K531LA3P	1
29	U88	Circuit integrat	74LS164	K555IR8	1
28	U70	Circuit integrat	74LS30	K555LA2	1
27	U98	Circuit integrat	74LS20	K555LA1	1
26	U72	Circuit integrat	74LS02	K555LE1	1
25	U13, U71, U89	Circuit integrat	74LS74	K555TM2	3
24	U22, U76	Circuit integrat	74LS32	K555LL1	2
23	U79	Circuit integrat	74LS11	K555LI3	1
22	U71, U78, U95	Circuit integrat	74LS10	K555LA4	3
21	U14, U73, U80, U100	Circuit integrat	74LS00	K555LA3	4
20	U83, U87, U101	Circuit integrat	74LS04	K555LN1	6
	U11, U75, U81				
19	U12	Circuit integrat	74LS125	K555LP8	1
18	U90, U97	Circuit integrat	74LS175	K555TM8	2
17	U16, U69	Circuit integrat	74LS138	K555ID7	2
16	U19	Circuit integrat	74S170	K155RP1	1
15	U23, U24	Circuit integrat	74S158/74S258	K531KP14	2
14	U67, U68	Circuit integrat	74S280	K531IP5P	2
13	U21, U25, U26	Circuit integrat	74LS244	K555AP5	3
12	U5, U6, U7, U18	Circuit integrat	74LS373	K555IR22	4
11	U17, U20, U65, U66, U91,	Circuit integrat	74LS245	K555AP6	8
	U8, U9, U10				
10	U27 ÷ U62	Circuit integrat	MK 4164	K565RU5G	36
9	U63, U64	Circuit integrat	i 2764/128	K573RF4/6	2
8	U2	Circuit integrat	i 8284	KR1810GF84	1
7	U1	Circuit integrat	i 8288	KR1810VG88	1
6	U92	Circuit integrat	i 8259 A	KR1810VN59A	1
5	U93	Circuit integrat	i 8253	KR580VI53	1
4	U82	Circuit integrat	i 8255A-5	KR580IK55	1
3	U15	Circuit integrat	i 8237-5		1
2	U3	Circuit integrat	i 8086	KR1810VM86	1
1		Circuit imprimat	703.910.011	Rev. B	1

Produs:	JUNIOR-XT	Cod: 703
IEPER APTG / Rev. B	703 910 010	Data: 5.12.'88
	MOTHERBOARD	Fila: 212

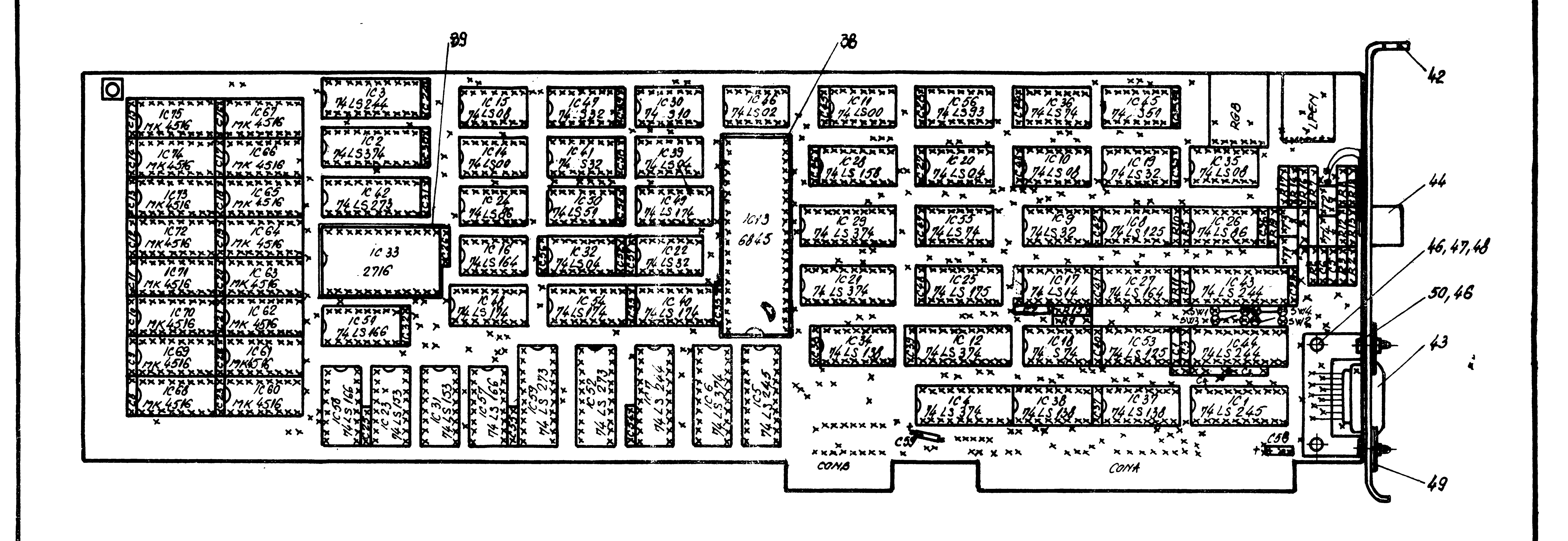


U4 LS374
U12 LS374
U13 6845
U29 LS374
U21 LS374
U52 LS273
U53 LS273
U42 LS273
U33 2716
U54 LS166
U3 LS244
U7 LS244
U2 LS374
U6 LS374
U1 LS245
U5 LS245
LS32
LS08
LS04
A1 ÷ A13
D0 ÷ D7
DB0 ÷ DB15
CPU RAS
CPU CAS
CRT RAS
CRT CAS
RAS2
RESET
CRTCS
CRTE
CCLK
LPENSTB
GRAPH
DOTCLK
CCLATCH
CLRSIR
ATLATCH
CHG DOTS
RD GATEL
RD GATEH
RDGATE
CURSOR
DISPEN
HSYNC
VSYNC
X1
X2
X3
X4
X5
WEX
XACK
+5V
PRODUS JUNIOR / XT
COD 703
IEPER
APTG
REV
703 910 060
DATA: 10.12.87
-0A COLOR GRAPHICS ADAPTOR
FILA 1/3


9
conector
74LS164
LS04
LS86
LS00
LS08
LS14
LS32
LS138
LS125
LS158
LS74
LS51
S32
S10
CAS
CASCC
RAS
S/L
HRES
CPUCAS
CPURAS
CRTCAS
CRTRAS
CPUMSEL
CRTCS
CRTE
YAEN
RESET
14MHz
7MHz
OSC
SEL1
SEL2
STAT
CLRLPSTB
PRLPSTB
LPENSTB
LPENIN
CCLK
DOTCLK
XACK
IORDY
WECC
WEX
WEAT
CCLATCH
ATLATCH
DGL
DGH
YMWR
YMRD
YIOCLK
NOTA:
Condensatoarele C56, C57 se implantează numai pe circuitele imprimate REV. A
PRODUS: JUNIOR / XT
COD: 703
IEPER APTG
REV: 0,A
703.910.060
COLOR GRAPHICS ADAPTOR
DATA: 10.12.87
FILA: 2/3



LS125
LS174
LS166
LS51
LS86
LS164
LS175
LS08
LS04
LS00
LS02
S32
S10
S51
493
LS74
LS153
LS244
2N2222
CURSOR BLINK
BLINK
COLOR SEL
ENABLE BLINK
640x200
GRAPH
BW
VIDEN
CLRS/R
SEL BLUE
HSYNC
VSYNC
CSYNC
BLANK
STR
MUXA
MUXB
33pF
PRODUS: JUNIOR/XT
COD: 703
IEPER
APTG
REV:
703.910.060
DATA: 10.12.87
0.A
COLOR GRAPHICS ADAPTOR
FILA: 3/3

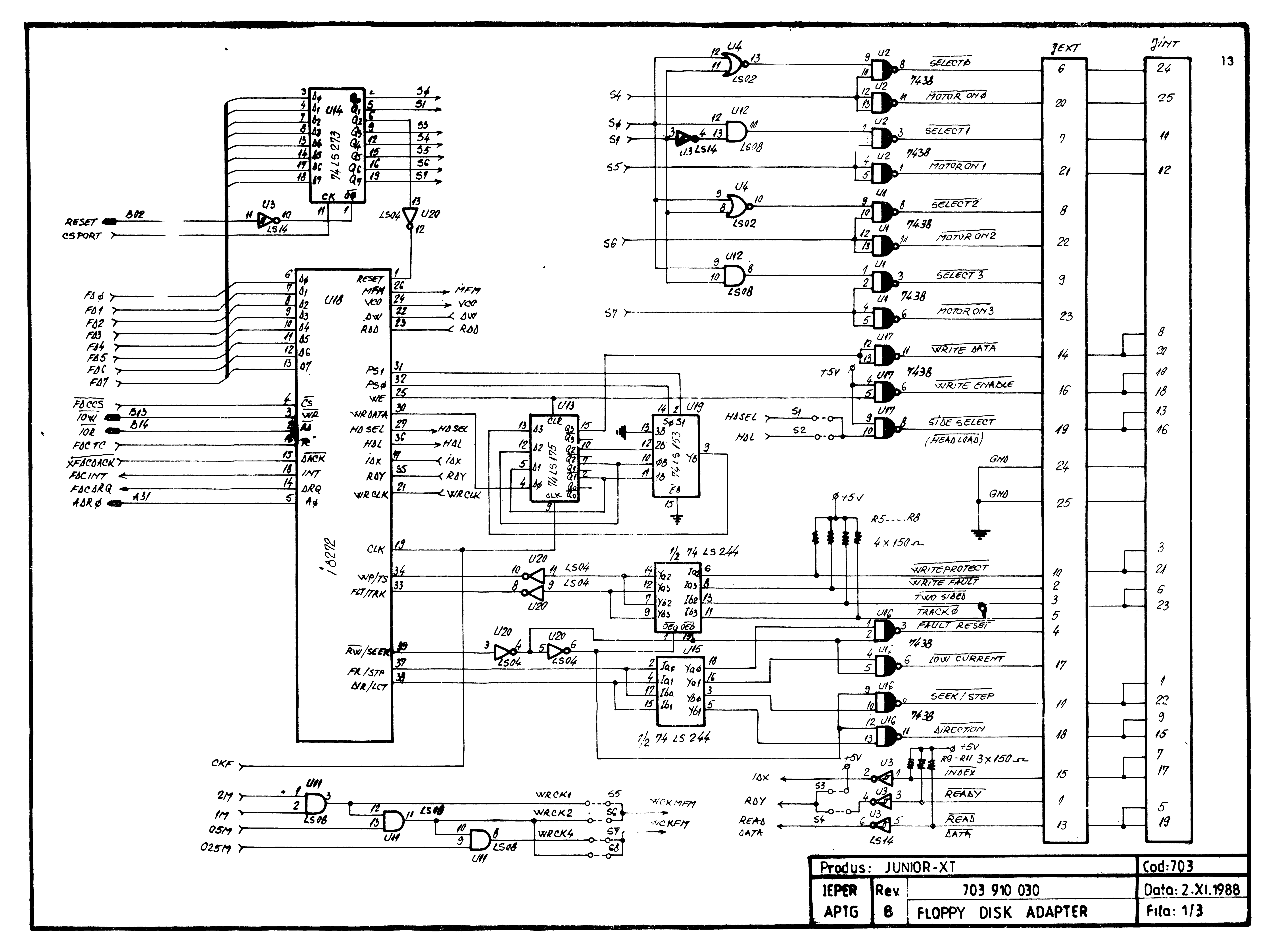


Produs - XT			Cod : 703
IEPER	Rev.	703 910 060	Data : 1.07.'88
APTG	0.A	COLOR GRAPHICS ADAPTOR	Fila 1/2

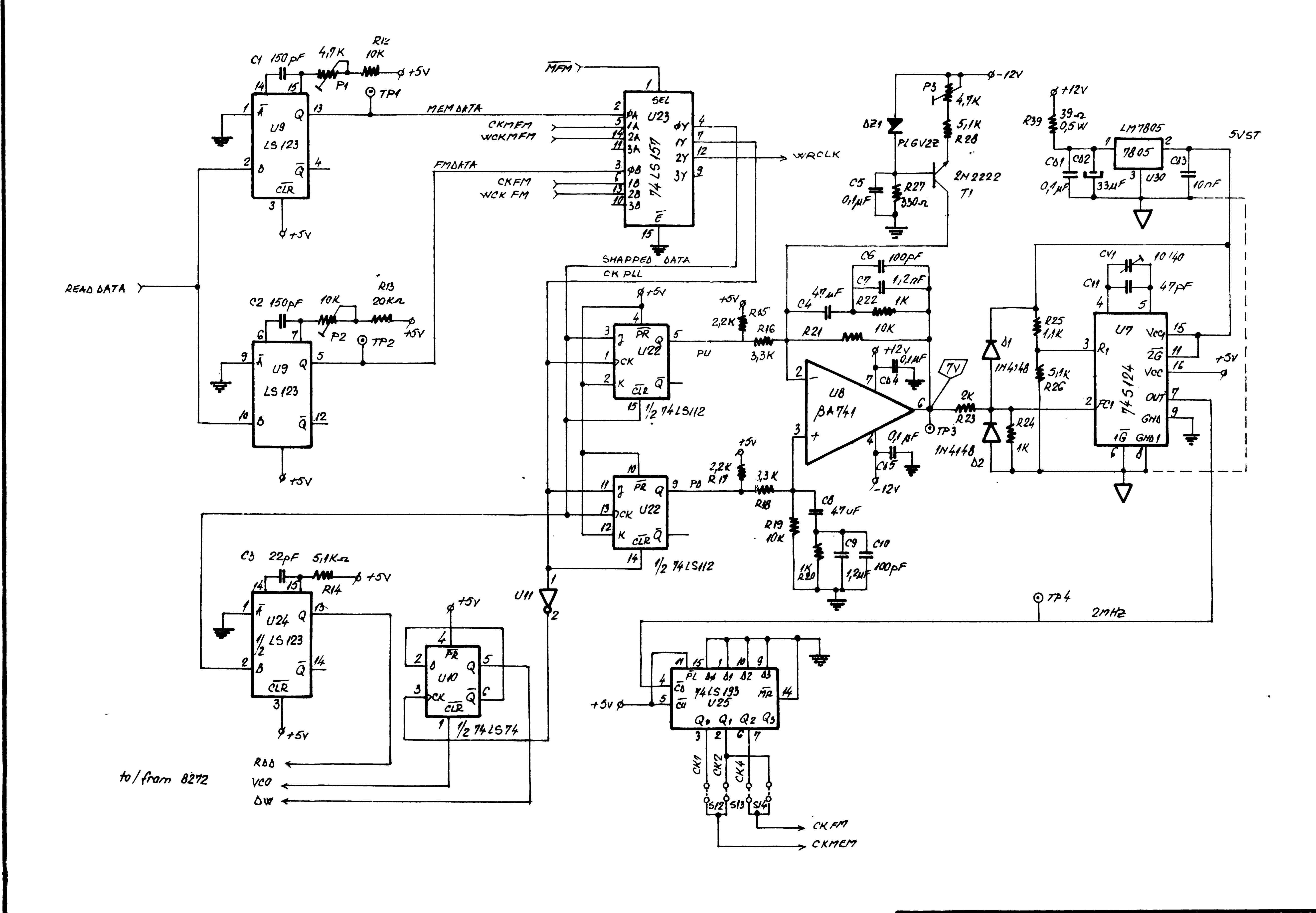
Poz	Simbol	Denumirea	Cod	Observatii	Cant
37	T1÷T4	Tranzistor	2N2222		4
36	C8÷C56	Condensator 100n/10%/50V	MB 3203		48
35	C1÷C6	Condensator 33p/10%/50V	MC 3202		6
34	R3	Rezistenta 12K/5%/0,25W	RPM 3025		1
33	R4	Rezistenta 3K7/5%/0,25W	RPM 3025		1
32	R1	Rezistenta 1K2/5%/0,25W	RPM 3025		1
31	R2	Rezistenta 560Ω/5%/0,25W	RPM 3025		1
30	R8÷R13	Rezistenta 470Ω/5%/0,25W	RPM 3025		6
29	R5, R6, R15, R17, R19	Rezistenta 180Ω/5%/0,25W	RPM 3025		5
28	R7, R14, R16, R18	Rezistenta 75Ω/5%/0,25W	RPM 3025		4
27	ic 56	Circuit integrat	CDB 493	K555 IE5	1
26	ic 24, ic 26	Circuit integrat	74LS86	K555 LP5	2
25	IC 36, IC 55	Circuit integrat	74LS74	K555 TM2	2
24	IC50	Circuit integrat	74LS51	K555 LR11	1
23	IC9, IC19, IC22,	Circuit integrat	74LS32	K555 LL1	3
22	IC17	Circuit integrat	74LS14	K555 TL2	1
21	IC 30	Circuit integrat	74 S10	K531 LA4P	1
20	IC10, IC15, IC35	Circuit integrat	74LS08	K555 LI1	3
19	IC20, IC32, IC39,	Circuit integrat	74LS04	K555 LN1	3
18	IC46	Circuit integrat	74LS02	K555 LE1	1
17	IC11, IC14,	Circuit integrat	74LS00	K555 LA3	2
16	IC8, IC53	Circuit integrat	74LS125	K555 LP8	2
15	IC34, IC37, IC38	Circuit integrat	74LS138	K555 ID7	3
14	IC 23, IC 31	Circuit integrat	74LS153	K555 KP2	2
13	IC 28	Circuit integrat 74LS258	/74LS158	K555 KP14P	1
12	IC16, IC27	Circuit integrat	74LS164	K555 IR8	2
11	IC57, IC58, IC51	Circuit integrat	74LS166	K555 IR10	3
10	IC40, IC48, IC49, IC54	Circuit integrat	74LS174	K555 TM9	4
9	IC 25	Circuit integrat	74LS175	K555 TM8	1
8	IC3, IC7, IC43, IC44	Circuit integrat	74LS244	K555 AP5	4
7	IC1, IC5	Circuit integrat	74LS245	K555 AP6	2
6	IC60÷IC75	Circuit integrat	MK 4516	K565 RU6	16
5	IC42, IC52, IC59	Circuit integrat	74LS273		3
4	IC2, IC4, IC6, IC12, IC21, IC29	Circuit integrat	74LS374	K555 IR23	6
3	IC33	Circuit integrat	2716	K573 RF2	1
2	IC13	Circuit integrat	6845		1
1		Circuit imprimat	703.910.061	Rev. A	1

Poz	Simbol	Denumirea	Cod	Observatii	Cant
56	C56, C57, C7	Condensator 100p 10% 50V	MC 3202		3
55	IC18	Circuit integrat	74S74	K531 TM2P	1
54	IC45	Circuit integrat	74S51	K531 LR11P	1
53	IC41, IC47	Circuit integrat	74S32	K531 LL1P	2
52		Nit	342.400.303		2
51		Şurub M3x8	304.110.308		2
50		Şaibă plată φ3	332 110 030		2
49		Ureche cu filet	400 057		2
48		Şaibă izolatoare	2110.10xx		4
47		Piuliţă hexagonală M3	316 110 030		4
46		Şurub M3x6	304 110 306		2
45		Circuit imprimat conector R.C.A.	703 910.244 rev φ		1
44		Conector R.C.A. mamă	200860		1
43		Conector rack 9 ct. m	200854		1
42		Suport conectori tip 2	703.110.009		1
41	RGB, LPEN	Conector tată 6 contacte	201 139		2
40	C58 – C59	Condensator 33μ/16V/10%	CTSP ..55		2
39	IC 33	Soclu C.I 24 pini	779 14 .19		1
38	IC 13	Soclu C.I 40 pini	779 14 021		1

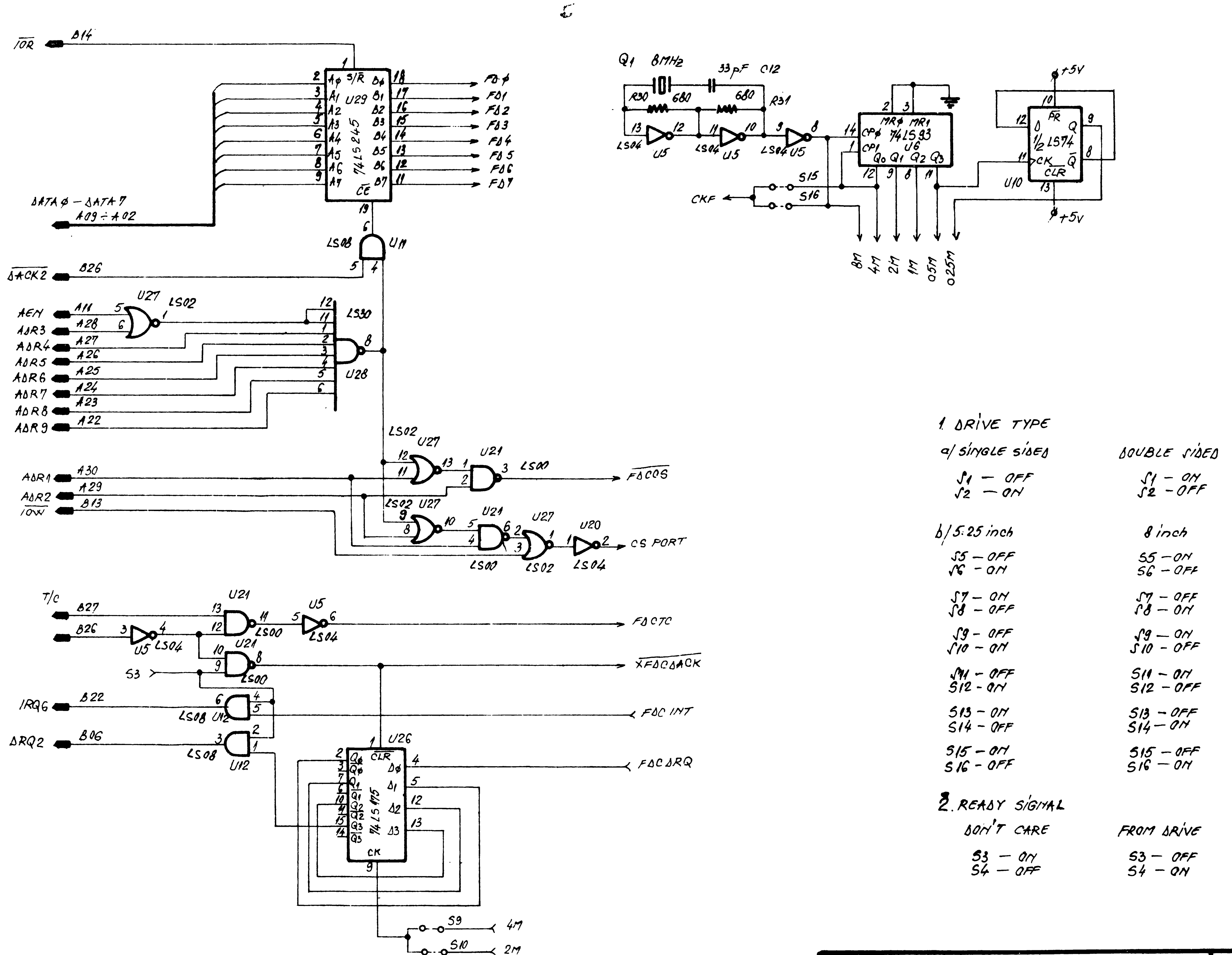
Produs: JUNIOR - XT			Cod: 703
IEPER APTG.	Rev. 0.A	703 910 060	Data: 1.07. 88
		COLOR GRAPHICS ADAPTOR	Fila: 2/2



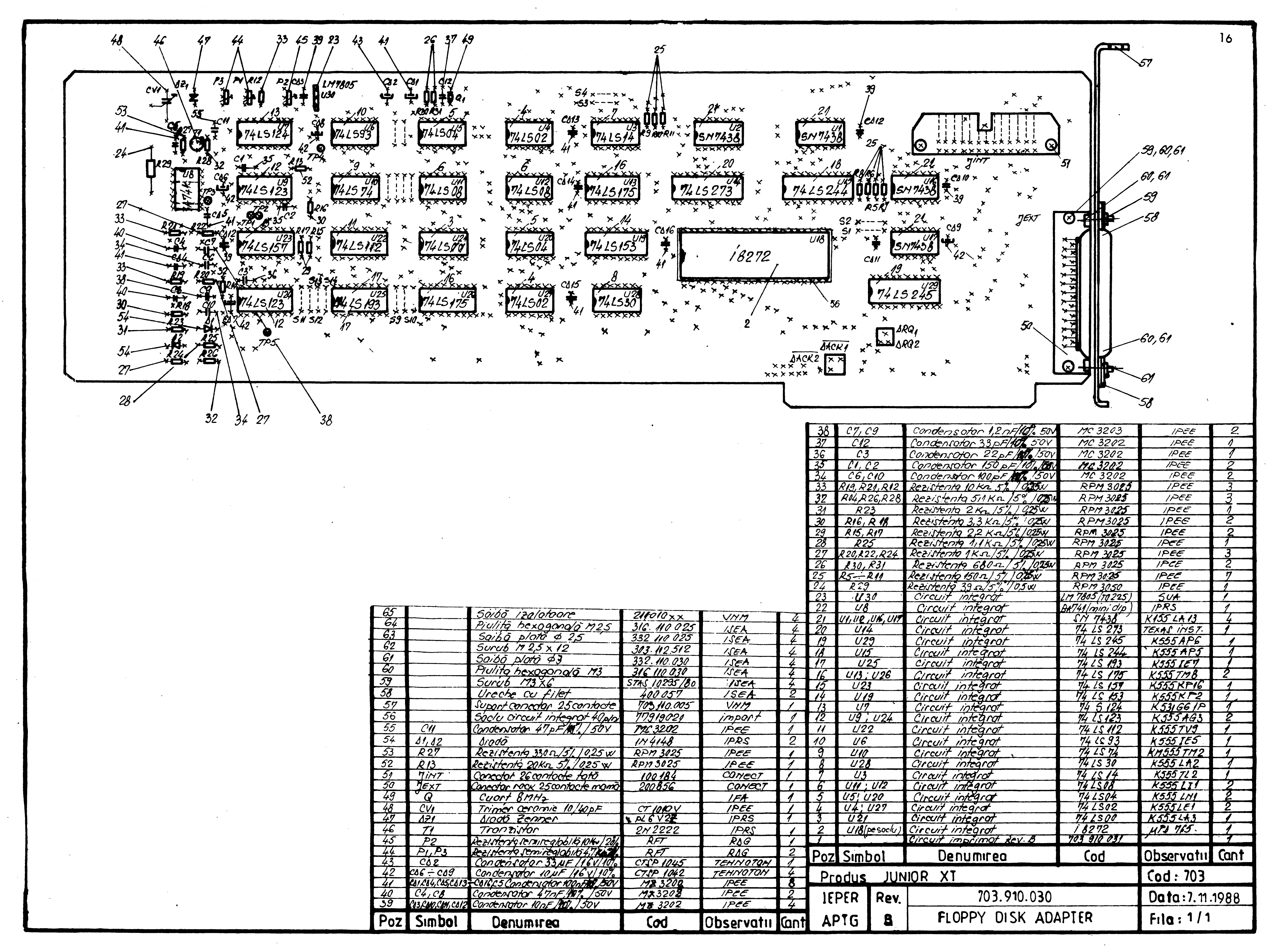
Produs: JUNIOR-XT			Cod: 703
IEPER	Rev.	703 910 030	Data: 2.XI.1988
APTG	B	FLOPPY DISK ADAPTER	Fila: 1/3



Produs: JUNIOR-XT			Cod: 703
IEPER APTG	Rev. B	703 910 030 FLOPPY DISK ADAPTER	Data: 2.XI.1988 Fila: 2/3

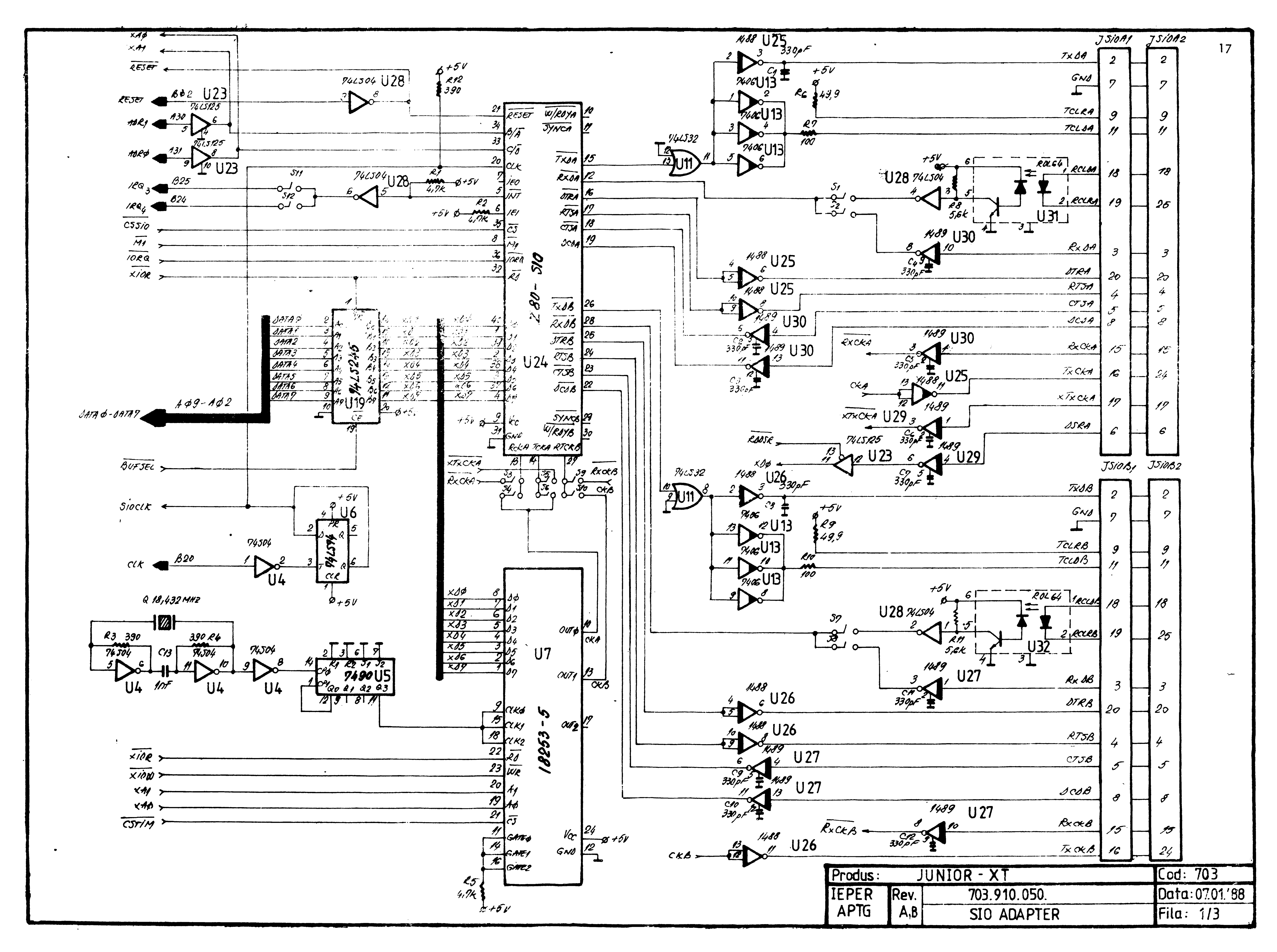


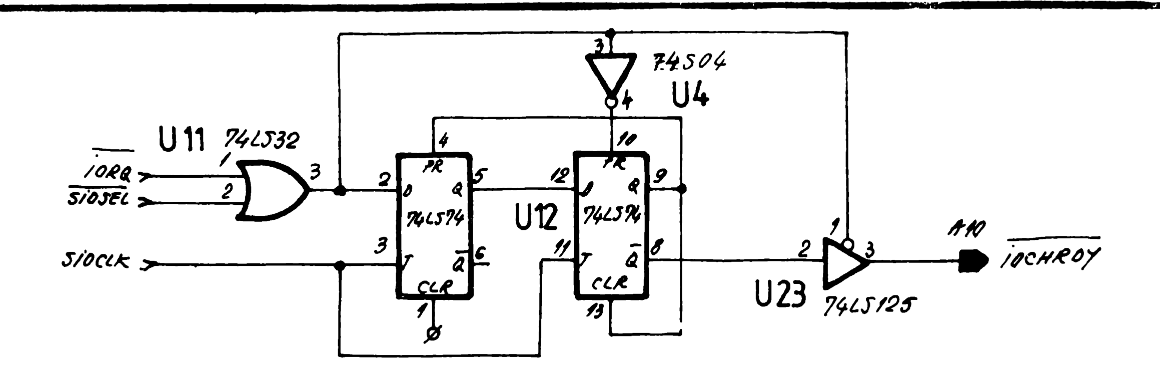
Produs: JUNIOR-XT			Cod: 703
IEPER	Rev.	703 910 030	Data: 2. XI. 1988
APTG	B	FLOPPY DISK ADAPTER	Fila: 3/3

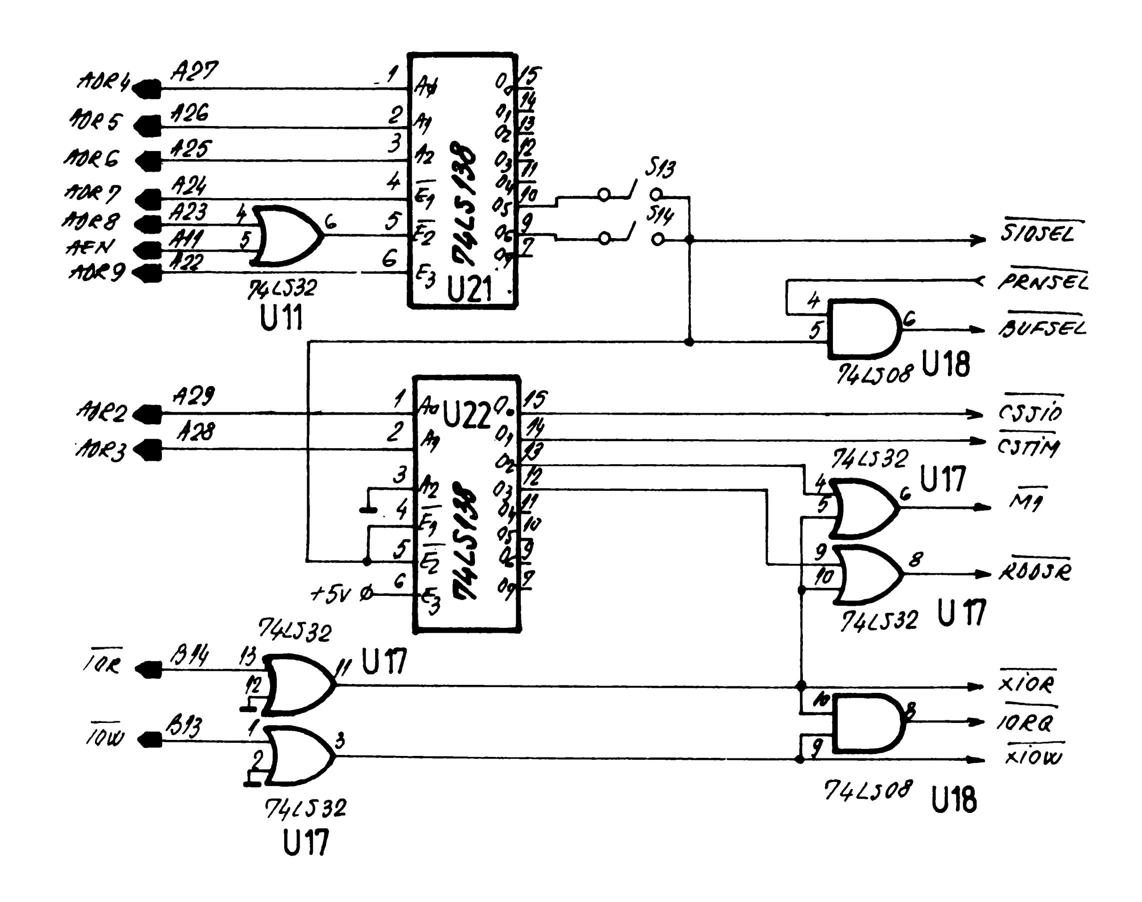


Poz	Simbol	Denumirea	Cod	Observatii	Cant
65		Saibă izolatoare	211010xx	VNM	4
64		Piulită hexagonală M2,5	316.110 025	ISEA	4
63		Saibă plată ϕ 2,5	332 110 025	ISEA	4
62		Surub M 2,5 x 12	303.112.512	ISEA	4
61		Saibă plată ϕ3	332.110.030	ISEA	4
60		Piulită hexagonală M3	316 110 030	ISEA	4
59		Surub M3x6	STAS 10295/80	ISEA	4
58		Ureche cu filet	400 057	ISEA	2
57		Suport conector 25 contacte	703.110.005	VNM	1
56		Soclu circuit integrat 40 pini	77919021	import	1
55	C11	Condensator 47pF/10%/50V	MC 3202	IPEE	1
54	Δ1, Δ2	Diodă	1N4148	IPRS	2
53	R27	Rezistenta 330Ω/5%/0,25W	RPM 3025	IPEE	1
52	R13	Rezistentă 20KΩ 5%/025W	RPM 3025	IPEE	1
51	JINT	Conector 26 contacte tată	100184	CONECT	1
50	JEXT	Conector rack 25 contacte mamă	200856	CONECT	1
49	Q	Cuart 8MHz		IFA	1
48	CV1	Trimer ceramic 10/40pF	CT 1010V	IPEE	1
47	ΔZ1	Diodă Zenner	PL6V2Z	IPRS	1
46	T1	Tranzistor	2N2222	IPRS	1
45	P2	Rezistentă semireglabilă 10KΩ/20%	RFT	RDG	1
44	P1, P3	Rezistentă semireglabilă 4,7KΩ/20%	RFT	RDG	2
43	CΔ2	Condensator 33μF/16V/10%	CTSP 1045	TEHNOTON	1
42	CΔ6 ÷ CΔ9	Condensator 10μF/16V/10%	CTSP 1042	TEHNOTON	4
41	CΔ1,CΔ4,CΔ5,CΔ13÷CΔ16,C5	Condensator 100nF/10%/50V	MZ 3202	IPEE	8
40	C4, C8	Condensator 47nF/10%/50V	MZ 3202	IPEE	2
39	CΔ3,CΔ10,CΔ11,CΔ12	Condensator 10nF/10%/50V	MZ 3202	IPEE	4
38	C7, C9	Condensator 1,2nF/10%/50V	MC 3203	IPEE	2
37	C12	Condensator 33pF/10%/50V	MC 3202	IPEE	1
36	C3	Condensator 22pF/10%/50V	MC 3202	IPEE	1
35	C1, C2	Condensator 150pF/10%/50V	MC 3202	IPEE	2
34	C6, C10	Condensator 100pF/10%/50V	MC 3202	IPEE	2
33	R19, R21, R12	Rezistenta 10KΩ 5%/0,25W	RPM 3025	IPEE	3
32	R04, R26, R28	Rezistenta 5,1KΩ/5%/0,25W	RPM 3025	IPEE	3
31	R23	Rezistenta 2KΩ/5%/0,25W	RPM 3025	IPEE	1
30	R16, R18	Rezistenta 3,3KΩ/5%/0,25W	RPM 3025	IPEE	2
29	R15, R17	Rezistenta 2,2KΩ/5%/0,25W	RPM 3025	IPEE	2
28	R25	Rezistenta 1,1KΩ/5%/0,25W	RPM 3025	IPEE	1
27	R20, R22, R24	Rezistenta 1KΩ/5%/0,25W	RPM 3025	IPEE	3
26	R30, R31	Rezistenta 680Ω/5%/0,25W	RPM 3025	IPEE	2
25	R5 ÷ R11	Rezistenta 150Ω/5%/0,25W	RPM 3025	IPEE	7
24	R29	Rezistenta 39Ω/5%/0,5W	RPM 3050	IPEE	1
23	U30	Circuit integrat	LM 7805 (TO 225)	SUA	1
22	U8	Circuit integrat	βA741 (mini dip)	IPRS	1
21	U1, U2, U16, U17	Circuit integrat	SN 7438	K155 LA13	4
20	U14	Circuit integrat	74 LS 273	TEXAS INST.	1
19	U29	Circuit integrat	74 LS 245	K555 AP6	1
18	U15	Circuit integrat	74 LS 244	K555 AP5	1
17	U25	Circuit integrat	74 LS 193	K555 IE7	1
16	U13; U26	Circuit integrat	74 LS 175	K555 TM8	2
15	U23	Circuit integrat	74 LS 157	K555 KP16	1
14	U19	Circuit integrat	74 LS 153	K555 KP2	1
13	U7	Circuit integrat	74 S 124	K531 GG1P	1
12	U9; U24	Circuit integrat	74 LS 123	K555 AG3	2
11	U22	Circuit integrat	74 LS 112	K555 TV9	1
10	U6	Circuit integrat	74 LS 93	K555 IE5	1
9	U10	Circuit integrat	74 LS 74	KM555 TM2	1
8	U28	Circuit integrat	74 LS 30	K555 LA2	1
7	U3	Circuit integrat	74 LS 14	K555 TL2	1
6	U11; U12	Circuit integrat	74 LS 08	K555 LI1	2
5	U5; U20	Circuit integrat	74 LS 04	K555 LN1	2
4	U4; U27	Circuit integrat	74 LS 02	K555 LE1	2
3	U21	Circuit integrat	74 LS 00	K555 LA3	1
2	U18 (pe soclu)	Circuit integrat	i 8272	μPD 765.	1
1		Circuit imprimat rev. B	703 910 031		1

Produs JUNIOR XT			Cod: 703
IEPER APTG	Rev. B	703.910.030 FLOPPY DISK ADAPTER	Data: 7.11.1988
			Fila: 1/1


Z80-SIO U24
I8253-5 U7
74LS245 U19
7490 U5
74LS74 U6
JSIOA1
JSIOA2
JSIOB1
JSIOB2
Q 18,432 MHz
DATAØ-DATA7
AØ9-AØ2
RESET
IRQ3
IRQ4
CSSIO
M1
IORQ
XIOR
XIOW
BUFSEL
SIOCLK
CLK
CSTIM
Produs: JUNIOR - XT
Cod: 703
IEPER APTG
Rev. A,B
703.910.050.
SIO ADAPTER
Data: 07.01.'88
Fila: 1/3





STRAP 11-14 CONFIGURATION (SIO ADAPTER ADDRESS):

ADDRESS	S11	S12	S13	S14
250-25F	OFF	ON	ON	OFF
260-26F	ON	OFF	OFF	ON

STRAP S1-S2 CONFIGURATION (SIOA INTERFACE TYPE):

INTERFACE TYPE	S1	S2
CCITT-V24	OFF	ON
CURRENT LOOP	ON	OFF

STRAP S7-S8 CONFIGURATION (SIOB INTERFACE TYPE):

INTERFACE TYPE	S7	S8
CCITT-V24	OFF	ON
CURRENT LOOP	ON	OFF

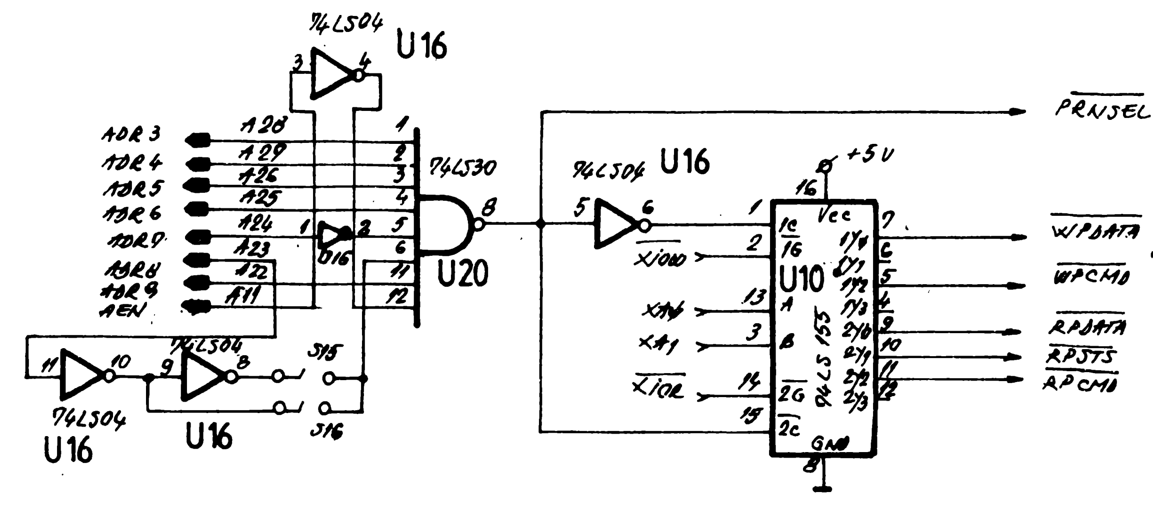
STRAP S3-S6 CONFIGURATION (SIOA ASYNC/SYNC MODE):

MODE	S3	S4	S5	S6
ASYNC	OFF	ON	OFF	ON
SYNC	ON	OFF	ON	OFF

STRAP S9-S10 CONFIGURATION (SIOB ASYNC/SYNC MODE):

MODE	S9	S10
ASYNC	OFF	ON
SYNC	ON	OFF

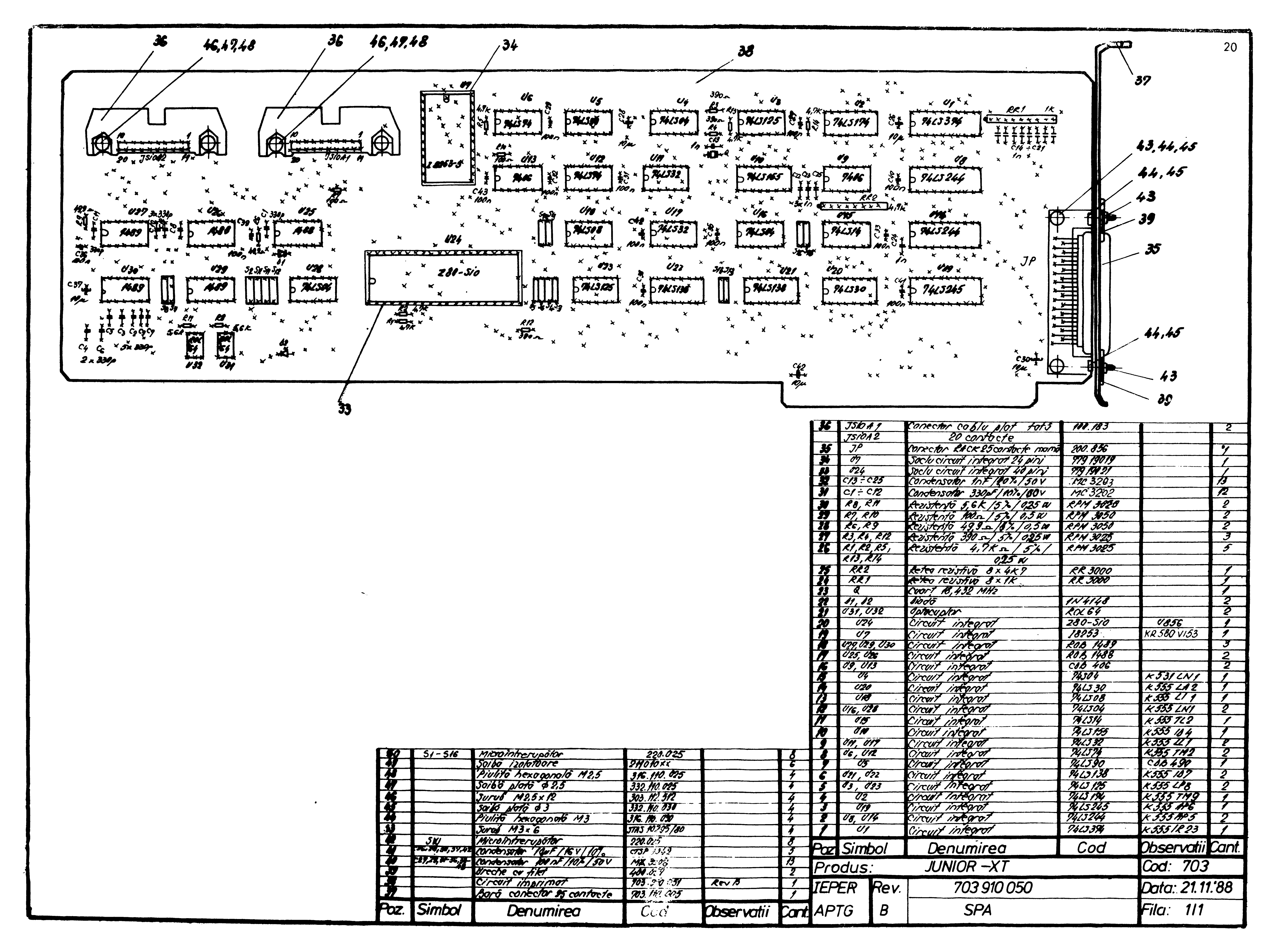
Produs: JUNIOR-XT			Cod: 703
IEPER APTG	Rev. A,B	703.910.050.	Data: 07.01.88
		SIO ADAPTER	Fila: 2/3



STRAP S15-S16 CONFIGURATION (PRINTER ADAPTER ADDRESS):

ADDRESS	S15	S16
278	OFF	ON
378	ON	OFF

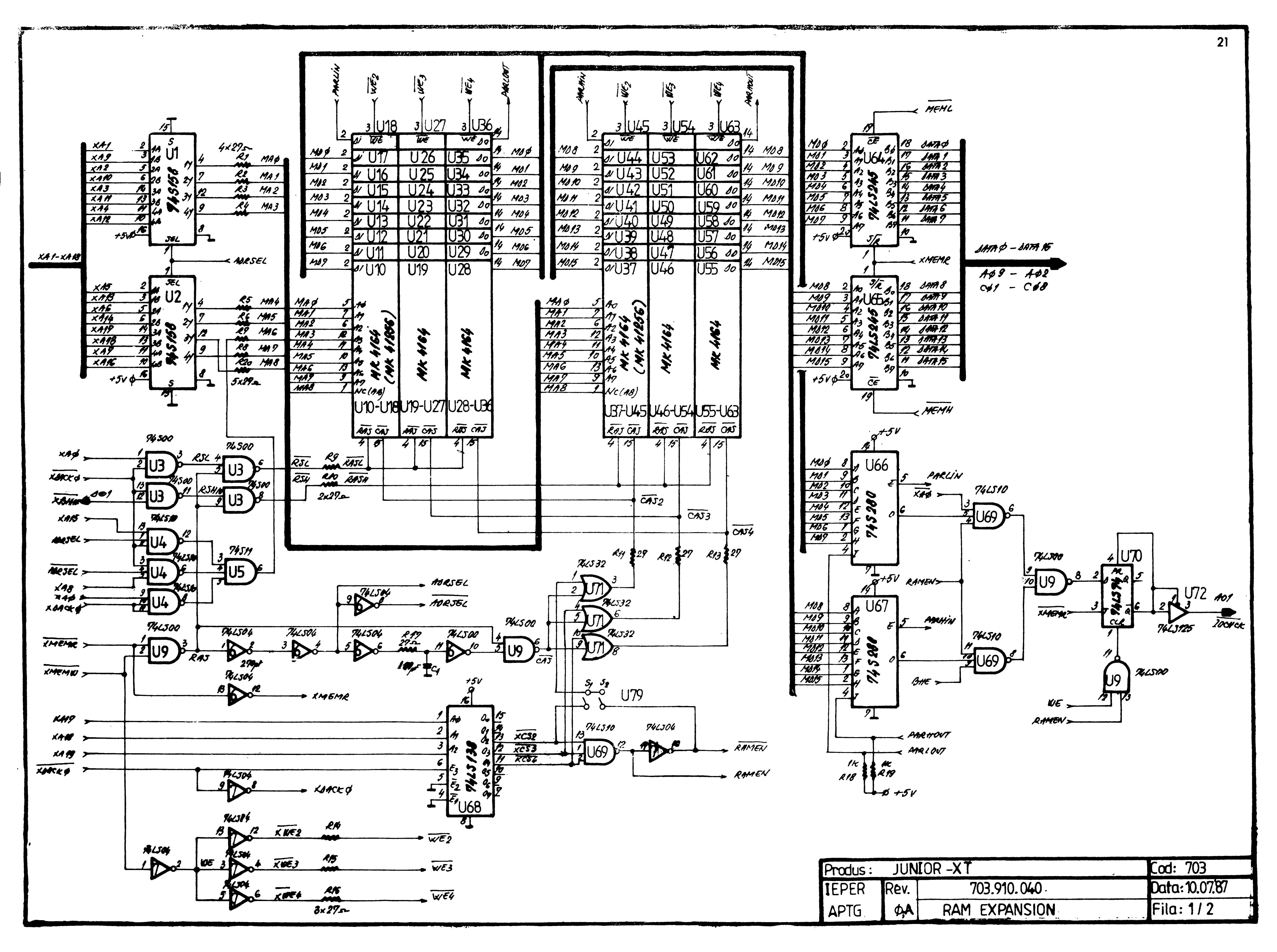
Produs: JUNIOR / XT		Cod: 703
IEPER	Rev. 703.910.050	Data: 07.01.88
APTG	A,B PRINTER ADAPTER	Fila: 3/3

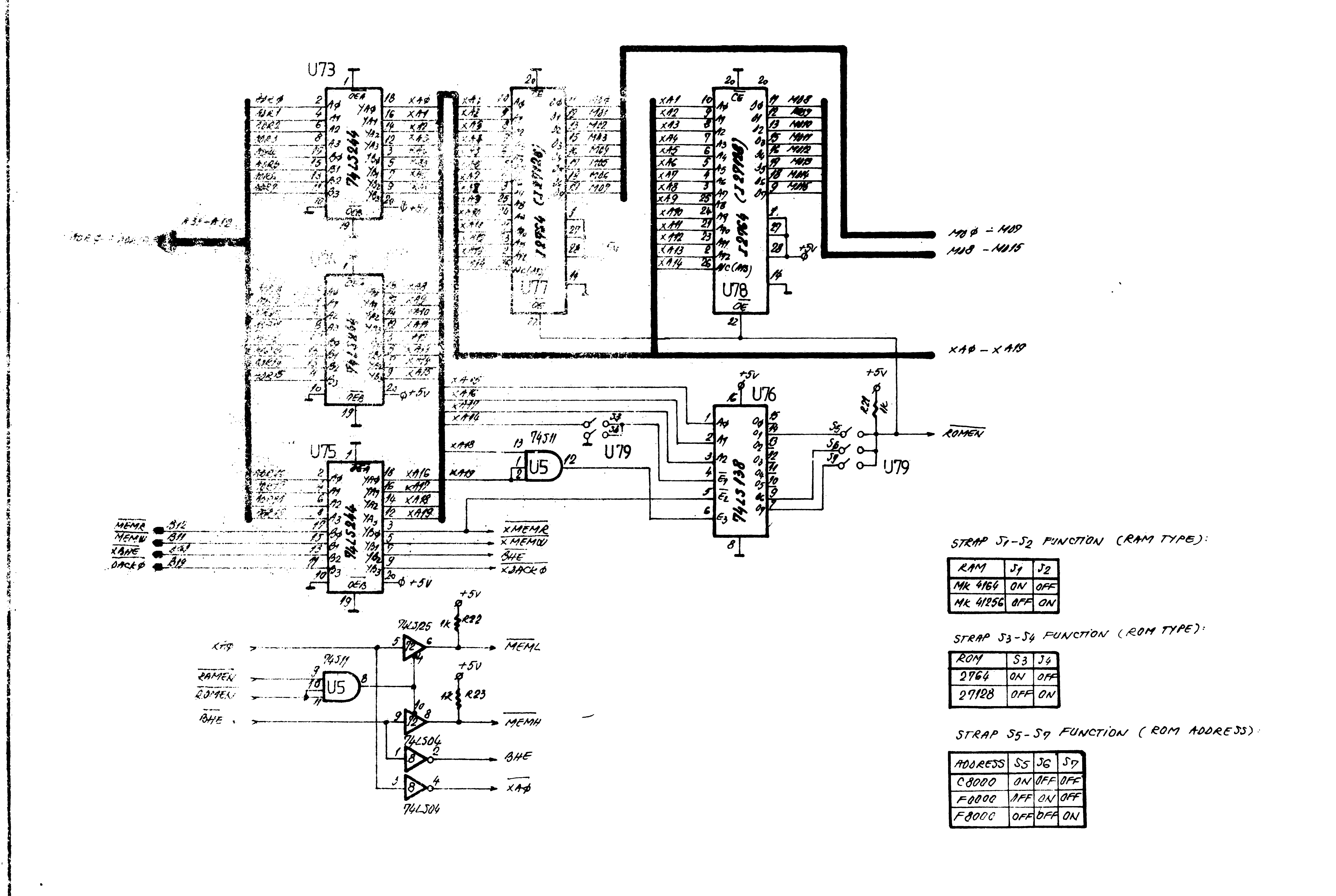


Poz	Simbol	Denumirea	Cod	Observatii	Cant.
36	JS10A1	Conector cablu plat tată	100.183		2
	JS10A2	20 contacte			
35	JP	Conector RACK 25 contacte mamă	200.856		1
34	U7	Soclu circuit integrat 24 pini	979 19019		1
33	U24	Soclu circuit integrat 40 pini	979 19021		1
32	C13 ÷ C25	Condensator 1nF/20%/50V	MC 3203		13
31	C1 ÷ C12	Condensator 330pF/10%/80V	MC 3202		12
30	R8, R11	Rezistență 5,6K/5%/0,25 W	RPM 3028		2
29	R7, R10	Rezistență 100Ω/5%/0,5 W	RPM 3050		2
28	R6, R9	Rezistență 49,9Ω/1%/0,5 W	RPM 3050		2
27	R3, R4, R12	Rezistență 390Ω/5%/0,25 W	RPM 3025		3
26	R1, R2, R5,	Rezistență 4,7KΩ/5%/	RPM 3025		5
	R13, R14	0,25 W			
25	RR2	Rețea rezistivă 8 x 4K7	RR 3000		1
24	RR1	Rețea rezistivă 8 x 1K	RR 3000		1
23	Q	Cuarț 18,432 MHz			1
22	D1, D2	Diodă	1N4148		2
21	U31, U32	Optocuplor	ROL 64		2
20	U24	Circuit integrat	Z80-SIO	U856	1
19	U7	Circuit integrat	I8253	KR 580 VI53	1
18	U27, U29, U30	Circuit integrat	ROB 1489		3
17	U25, U26	Circuit integrat	ROB 1488		2
16	U9, U13	Circuit integrat	CDB 406		2
15	U4	Circuit integrat	74S04	K531 LN1	1
14	U20	Circuit integrat	74LS30	K555 LA2	1
13	U18	Circuit integrat	74LS08	K555 LI1	1
12	U16, U28	Circuit integrat	74LS04	K555 LN1	2
11	U15	Circuit integrat	74LS14	K555 TL2	1
10	U10	Circuit integrat	74LS155	K555 ID4	1
9	U11, U17	Circuit integrat	74LS32	K555 LL1	2
8	U6, U12	Circuit integrat	74LS74	K555 TM2	2
7	U5	Circuit integrat	74LS90	CDB 490	1
6	U21, U22	Circuit integrat	74LS138	K555 ID7	2
5	U3, U23	Circuit integrat	74LS125	K555 LP8	2
4	U2	Circuit integrat	74LS174	K555 TM9	1
3	U19	Circuit integrat	74LS245	K555 AP6	1
2	U8, U14	Circuit integrat	74LS244	K555 AP5	2
1	U1	Circuit integrat	74LS394	K555 IR23	1

Poz.	Simbol	Denumirea	Cod	Observatii	Cant.
50	S1 - S16	Microintrerupător	220.025		8
49		Șaibă izolatoare	2H010xx		6
48		Piuliță hexagonală M2,5	316.110.025		4
47		Șaibă plată Φ2,5	332.110.025		4
46		Șurub M2,5 x 12	303.112.512		4
45		Șaibă plată Φ3	332.110.030		4
44		Piuliță hexagonală M3	316.110.030		4
43		Șurub M3 x 6	STAS 10295/80		4
42	S1U	Microintrerupător	220.025		8
41	C26, 30, 31, 39, 42	Condensator 10µF/16V/10%	CTSP [illegible]		5
40	C27, 28, 32-36, 38, 43	Condensator 100nF/10%/50V	MK [illegible]		13
39		Ureche cu filet	400.[illegible]		2
38		Circuit imprimat	703.[illegible]	Rev B	1
37		Bară conector 25 contacte	703.1[illegible].025		1

Produs:	JUNIOR -XT		Cod: 703
IEPER	Rev.	703 910 050	Data: 21.11.'88
APTG	B	SPA	Fila: 1/1


Produs: JUNIOR -XT
Cod: 703
IEPER
Rev.
703.910.040
Data: 10.07.87
APTG
ΦA
RAM EXPANSION
Fila: 1/2
74LS158
MK 4164 (MK 41256)
MK 4164
74LS245
74S280
74LS138
74LS74
74LS125
74LS00
74LS04
74LS10
74LS11
74LS32
XA1-XA19
DATAΦ - DATA15
AΦ9 - AΦ2
CΦ1 - CΦ8
MEML
MEMH
XMEMR
XMEMW
ADRSEL
PARLIN
PARLOUT
PARHIN
PARHOUT
RAMEN
WE2
WE3
WE4
CAS2
CAS3
CAS4
U79
4x27Ω
5x27Ω
2x27Ω
3x27Ω



STRAP S1-S2 FUNCTION (RAM TYPE):

RAM	S1	S2
MK 4164	ON	OFF
MK 41256	OFF	ON

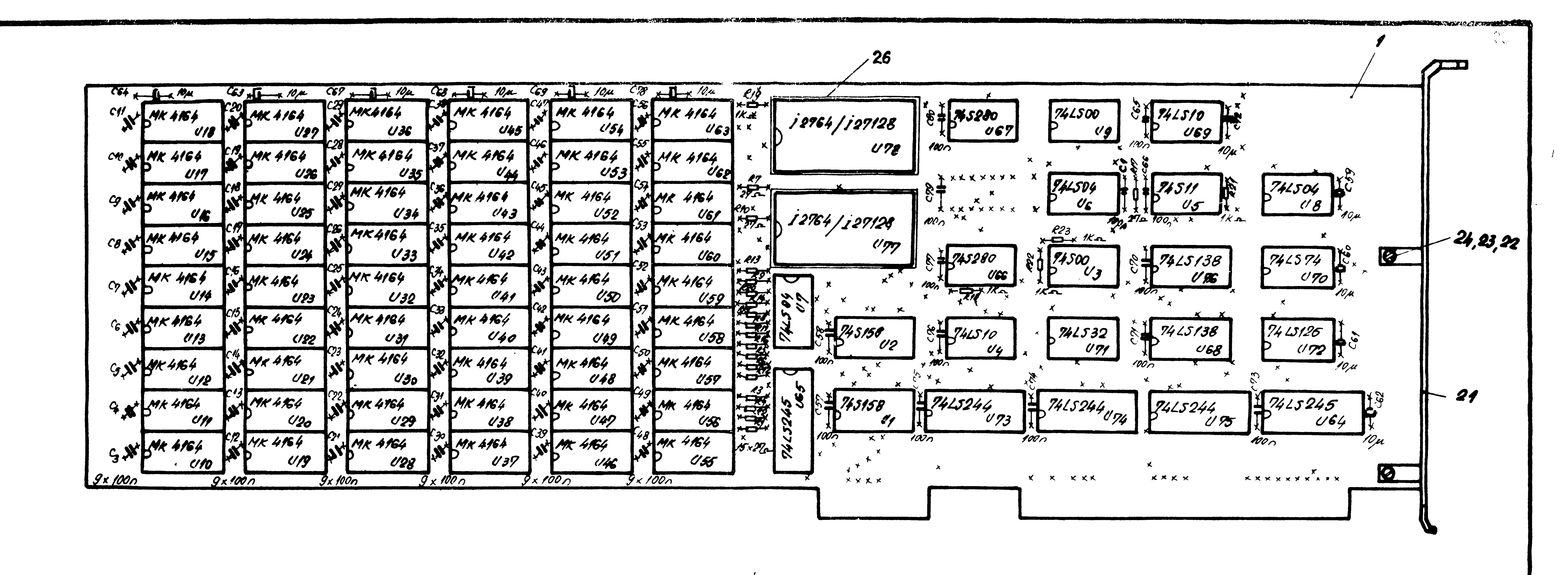
STRAP S3-S4 FUNCTION (ROM TYPE):

ROM	S3	S4
2764	ON	OFF
27128	OFF	ON

STRAP S5-S7 FUNCTION (ROM ADDRESS):

ADDRESS	S5	S6	S7
C8000	ON	OFF	OFF
F0000	OFF	ON	OFF
F8000	OFF	OFF	ON

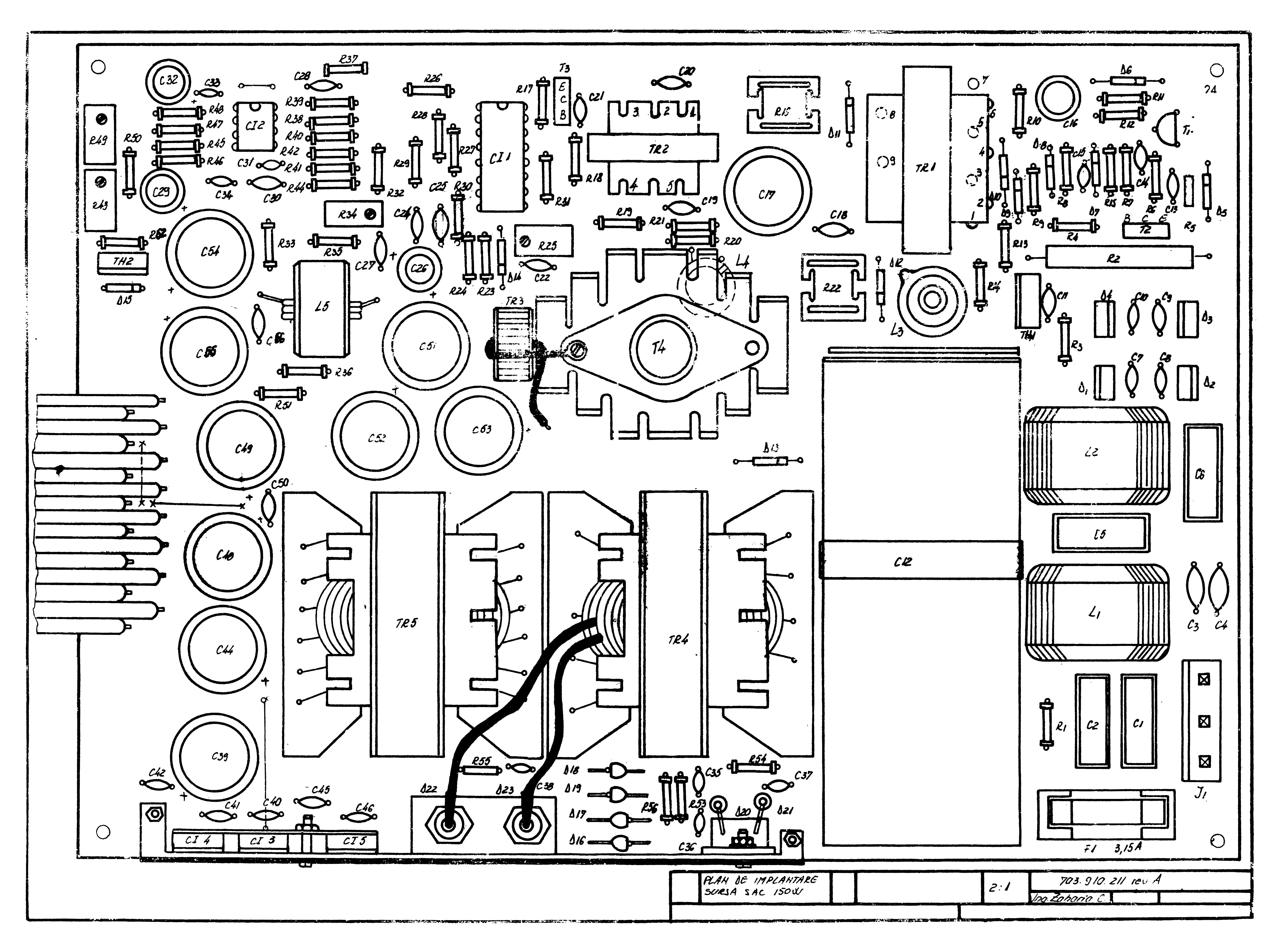
Produs:	JUNIOR - XT		Cod: 703
IEPER	Rev.	703.910.040	Data: 10.07.'87
APTG	Ø;A	RAM EXPANSION	Fila: 2/2

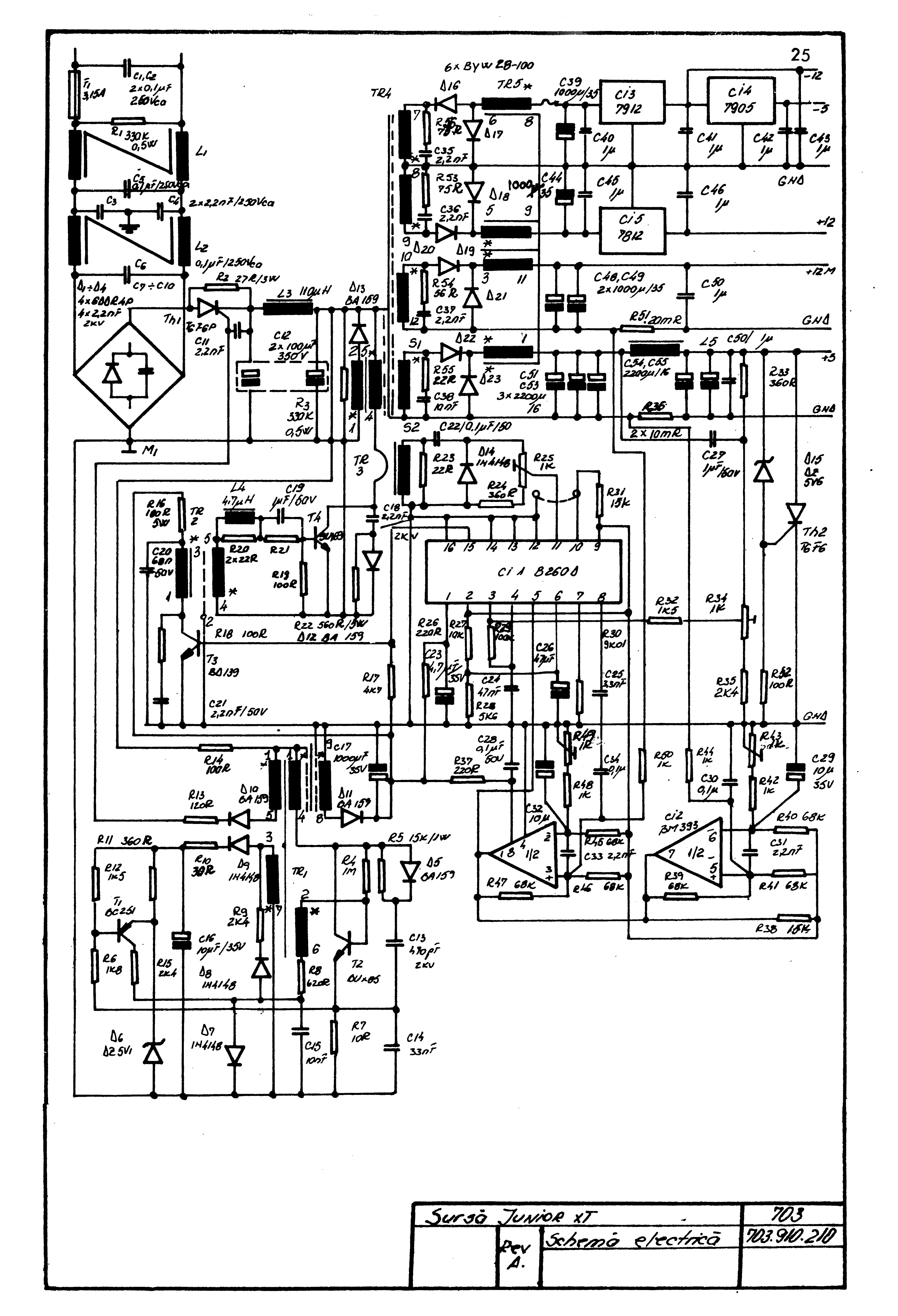


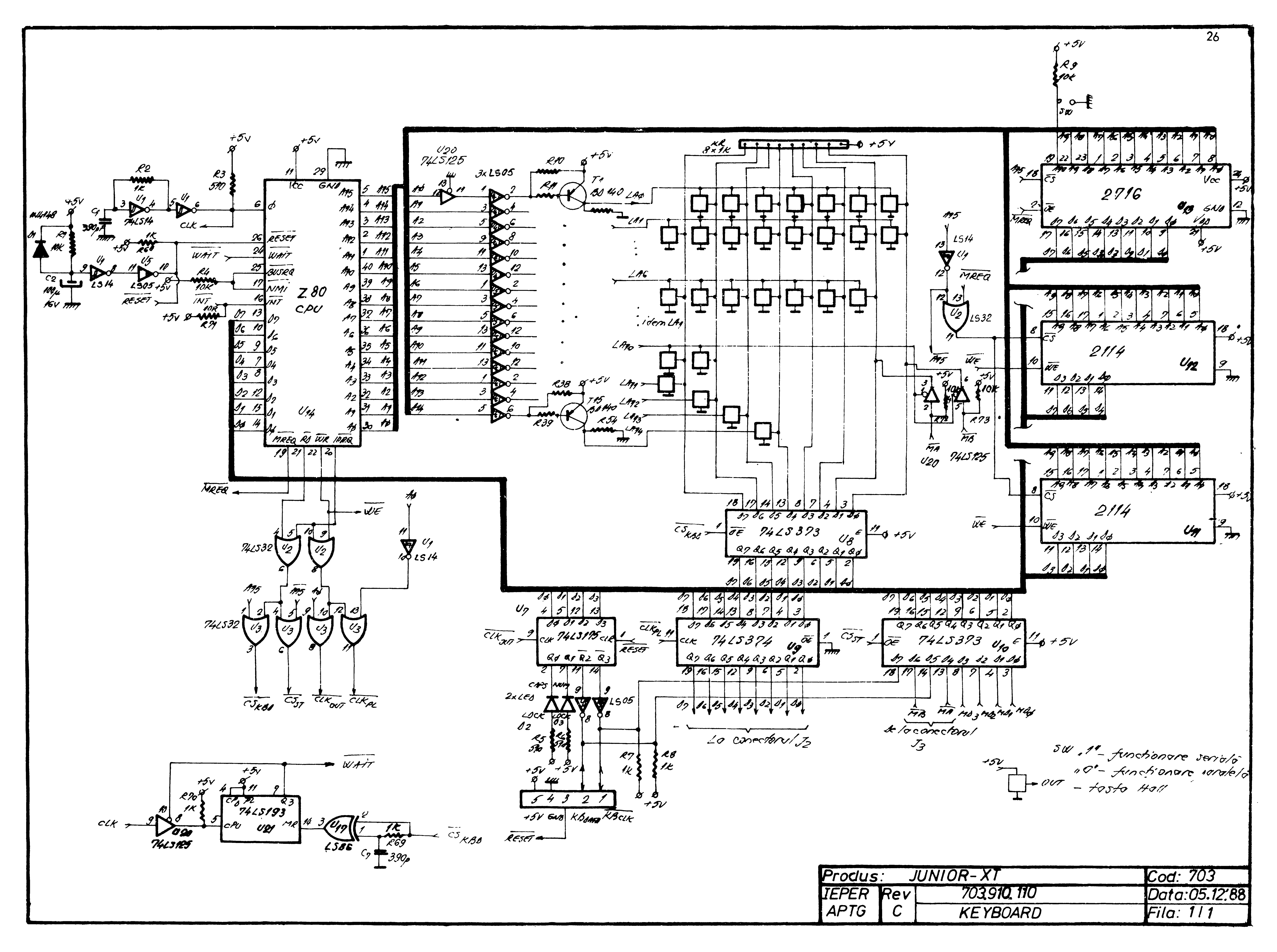
NOTĂ: Circuitele integrate și soclurile de la pozițiile U76, U77, U78 nu se plantează decît pentru extensie de ROM

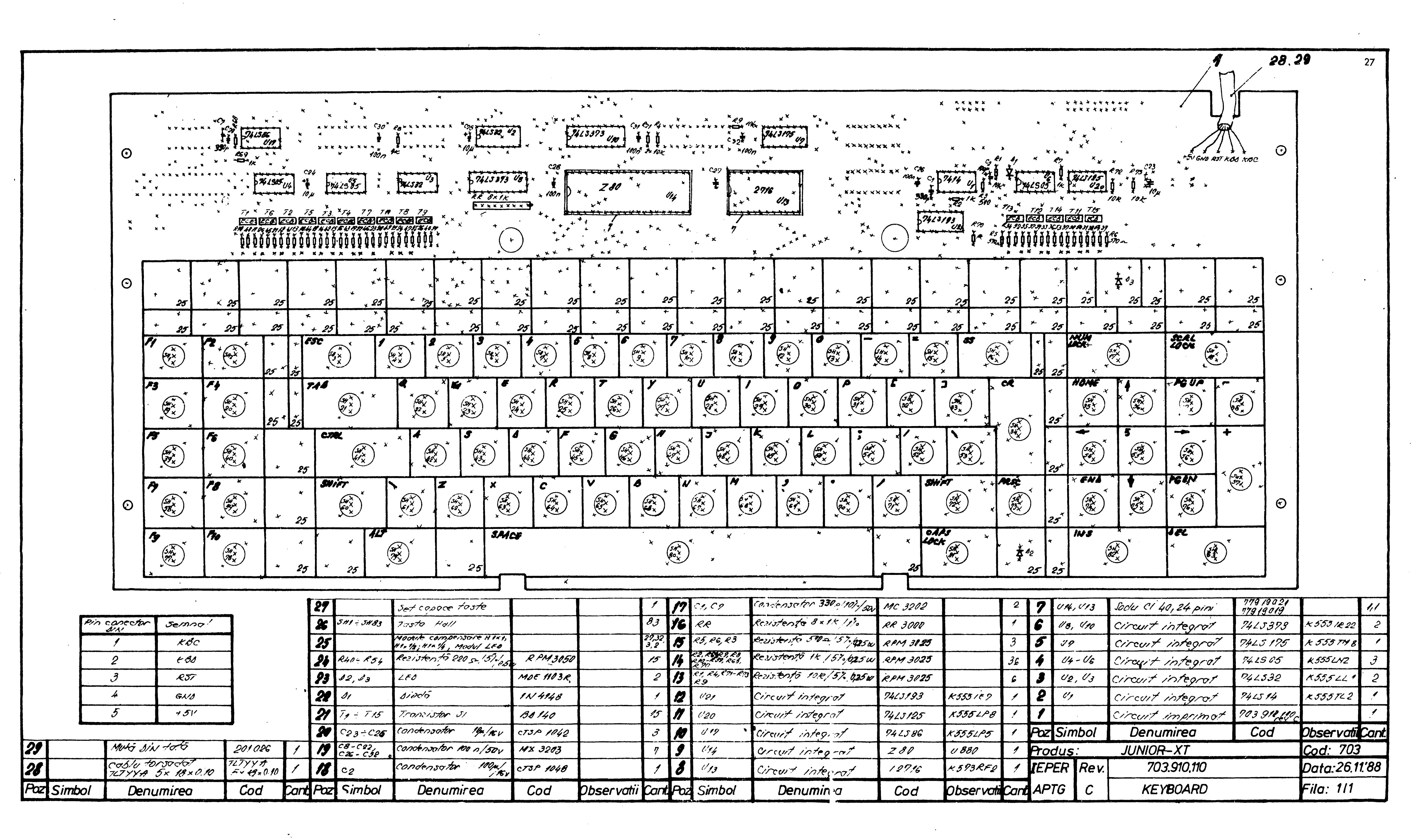
Poz	Simbol	Denumirea	Cod	Observatii	Cant
26	U77, U78	Soclu circuit integrat 28 pini	77919020		2
25	U77, U78	Circuit integrat	I2764/I27128		2
24		Piuliță M3	316.110.030		2
23		Șaibă Ø3	332.110.030		4
22		Șurub M3x6	STAS 10295/80		2
21		Bară conector tip 4	703.110.009		1
20	R18, R19 R21 - R23	Rezistență 1KΩ / 5% / 0,25W	RCG 3025		5
19	R1 - R17, R20	Rezistență 27Ω / 5% / 0,25 W	RCG 3025		18
18	C1	Condensator 100pF / 10% / 50 V	MC 3202		1
17	C63, C64, C67, C68 C69, C78, C72, C59-C62	Condensator 10µF / 10% / 16 V	SP 1042		11
16	C3-C38, C65, C66, C70, C71, C73-C77, C79, C80	Condensator 100 nF / 10% / 50 V	MX 3203		6?
15	U1, U2	Circuit integrat	74S158/ 74S258	K531KP14P	2
14	U73-U75	Circuit integrat	74LS244	K555 AP5	3
13	U64, U65	Circuit integrat	74LS245	K555AP6	2
12	U71	Circuit integrat	74LS32	K 555LL1	1
11	U9	Circuit integrat	74LS00	K 555LA3	1
10	U5	Circuit integrat	74S11	K 531LI3	1
9	U4, U69	Circuit integrat	74LS10	K 555LA4	2
8	U3	Circuit integrat	74S00	K 531 LA3	1
7	U6, U7, U8	Circuit integrat	74LS04	K 555LN1	3
6	U70	Circuit integrat	74LS74	K 555 TM2	1
5	U72	Circuit integrat	74LS125	K 555 LP8	1
4	U68, U76	Circuit integrat	74LS138	K 555 ID7	2
3	U66, U67	Circuit integrat	74S280	K 531 IP5	2
2	U10 - U63	Circuit integrat	MK 4164	K 565 RU5G	54
1		Circuit imprimat	703.910.041 Rev A.		1

Produs: JUNIOR-XT			Cod: 703
IEPER	Rev.	703 910040	Data 21.11.88
APTG	A	RAM EXPANSION	Fila: 1/1


PLAN DE IMPLANTARE
SURSA SAC 150W
2:1
703.910.211 rev A
Ing. Zaharia C.
TR1
TR2
TR3
TR4
TR5
T4
CI 1
CI 2
CI 3
CI 4
CI 5
L1
L2
L3
L4
L5
C12
C17
C26
C29
C32
C39
C44
C49
C51
C52
C54
C63
TH2
F1 3,15A
J1


6×BYW 28-100
TR4
TR5
Ci3
7912
Ci4
7905
Ci5
7812
-12
-5
+12
+12M
+5
GND
Ci1 B260D
Ci2 BM393
TR1
TR3
T1
BC251
T3
BD139
Th1
T676P
Th2
T6F6
M1
F1
3,15A
C1,C2
2×0,1µF
250Vca
L1
L2
Δ1÷Δ4
4×600R4P
4×2,2nF
2KV
R2 27R/3W
L3 110µH
C12
2×100µF
350V
R3
330K
0,5W
R22 560R/3W
Δ12 BA159
R14
100R
R13
120R
Δ10
BA159
Δ11
BA159
R5 15K/1W
Δ5
BA159
C13
470pF
2KV
C14
33nF
R11 360R
R12
1K5
R6
1K8
R15
2K4
Δ6
Δ25V1
Δ7
1N4148
Δ8
1N4148
Δ9
1N4148
C16
10µF/35V
C48,C49
2×1000µ/35
R51 20mR
R36
2×10mR
R38 18K
R47 68K
R46 68K
R39
68K
R41 68K
R40 68K
C29
10µ
35V
Sursă Junior xT
703
Schemă electrică
703.910.210
Rev
A.


Z 80
CPU
U14
74LS125
U20
3x LS05
2716
U13
2114
U12
U11
74LS373
U8
74LS374
U9
74LS373
U10
74LS195
U7
74LS193
U21
74LS32
U2
U3
LS14
LS86
LS05
LS32
+5V
CLK
RESET
WAIT
BUSRQ
NMI
INT
MREQ
WE
CS KBD
CS ST
CLK OUT
CLK PL
2xLED
CAPS LOCK
NUM LOCK
KBdata
KBclk
La conectorul J2
de la conectorul J3
SW „1" - functionare seriala
„0" - functionare paralela
- tasta Hall
OUT
Produs: JUNIOR-XT
Cod: 703
IEPER
APTG
Rev
C
703.910.110
KEYBOARD
Data: 05.12.88
Fila: 1/1



Pin conector DIN	Semnal
1	KBC
2	KBD
3	RST
4	GND
5	+5V

Poz	Simbol	Denumirea	Cod	Observatii	Cant
29		Mufă DIN tată	201026		1
28		cablu torsadat TLTYYA 5× 18×0.10	TLTYYA 5× 18×0.10		1
27		Set capace taste			1
26	SH1 ÷ SH83	Tastă Hall			83
25		Module compensare H1×1, H1×1/2; H1×1/4, Modul LED			27,32, 3,2
24	R40 ÷ R54	Rezistență 220 Ω /5%/0,25W	RPM 3050		15
23	D2, D3	LED	MDE 1103R		2
22	D1	Diodă	1N 4148		1
21	T1 ÷ T15	Tranzistor Si	BD 140		15
20	C23 ÷ C25	condensator 10µ/16V	CTSP 1042		3
19	C8 - C22, C26 - C32	condensator 100 n/50V	MX 3203		7
18	C2	condensator 100µ/16V	CTSP 1048		1
17	C1, C7	Condensator 330p/10%/50V	MC 3202		2
16	RR	Rezistență 8×1K /1%	RR 3000		1
15	R5, R6, R3	Rezistență 510 Ω /5%/0,25W	RPM 3025		3
14	R2, R6, R9, R8, R10-R59, R61, R70	Rezistență 1K /5%/0,25W	RPM 3025		36
13	R1, R4, R71-R73 R9	Rezistență 10K/5% 0,25W	RPM 3025		6
12	U21	Circuit integrat	74LS193	K555IE7	1
11	U20	Circuit integrat	74LS125	K555LP8	1
10	U19	Circuit integrat	74LS86	K555LP5	1
9	U14	Circuit integrat	Z 80	U 880	1
8	U13	Circuit integrat	I 2716	K573RF2	1
7	U14, U13	Soclu CI 40, 24 pini	779 19021 779 19019		1,1
6	U8, U10	Circuit integrat	74LS373	K555IR22	2
5	U9	Circuit integrat	74LS175	K555TM8	1
4	U4 - U6	Circuit integrat	74LS05	K555LN2	3
3	U2, U3	Circuit integrat	74LS32	K555LL1	2
2	U1	Circuit integrat	74LS14	K555TL2	1
1		Circuit imprimat	703 910 110 C		1

Produs:		JUNIOR–XT	Cod: 703
IEPER	Rev.	703.910.110	Data: 26.11'88
APTG	C	KEYBOARD	Fila: 1/1